D3.2.5.1
External Transaction Manager (ETM) Common Overview

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Greg Arnold, Chris Jones
garnol@agccs.lmco.com
cjones@agccs.lmco.com

Agenda

- Agenda
  - Application Introduction
    - ETM Common
  - ETM Common Applications

ETM Reference	ETMREW	ETM_ref
ETM JOPES Download	ETMTFW	ETM_tfd
ETM JOPES Upload	ETMSMW	ETM_smd
ETM COMPASS	ETMCPW	ETM_cps
ETM JTAV	ETMJTW	ETM_jtv
ETM MIDB	ETMMDW	ETM_mdb
ETM Targeting	ETMTGW	ETM_tgt
ETM ROKUS/US-Only Sync	ETMSRW	ETM_snr

ETM Common / Applications Introduction

- ETM’s purpose is to transfer data between GCCS-A and external systems.
  - Data is received (retrieved) from external systems.
  - Data is sent (provided) to external systems.

ETM Common / Applications Introduction

- Data is transferred by various methods.
  - Data is received by number of methods:
    - FTP
    - Email POP3
    - SQL Database Queries - ODBC and Sybase specific.
    - Application Programmer Interfaces (APIs)
    - Newsgroups
  - Data is sent using a number of methods:
    - FTP
    - Email SMTP
    - APIs

ETM Common / Applications Introduction

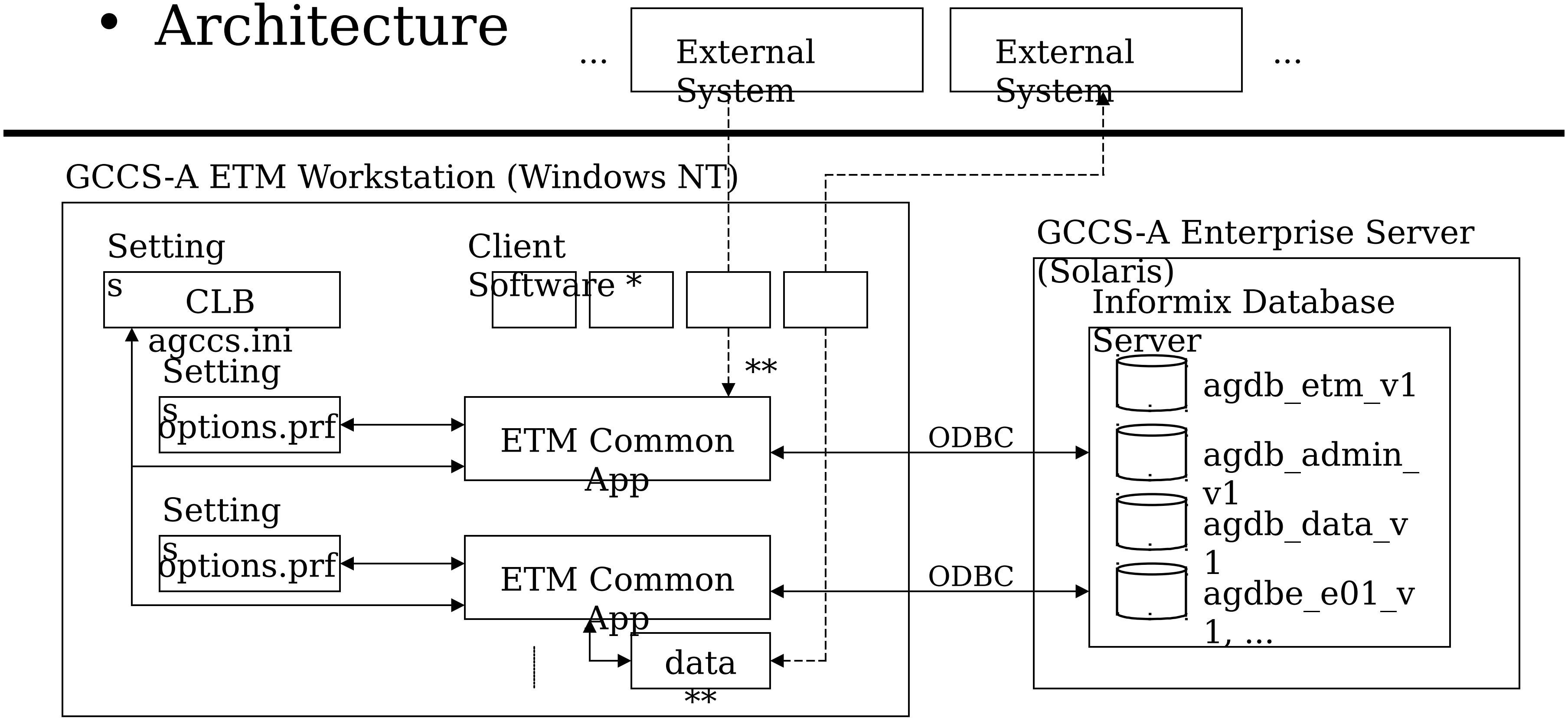
- The ETM Common application framework is a cohesive set of GUI and logic components designed to the task of external interface data processing.
  - GUI Ex’s: Settings, log viewing, etc
  - Component Ex’s: FTP component, email component, etc.
- The framework is implemented in PowerBuilder 6.0 to run on a Windows NT Workstation.

ETM Common / Applications Introduction

- Assumptions
  - The ETM applications are run by an ETM Administrator user.
    - This user need not have SA skills.
    - This user has domain expertise needed to determine which data must be transferred and coordinate with the external system POCs.
  - Each ETM application transfers data in a single point in theater.
    - For each ETM application, there can only be one instance of the application running in “local” mode, the single point of data flow.
    - However, the ETM applications may be run in “remote” mode in any number of places in theater (see ETM Admin Guide, section 3.2).
  - ETM Workstation
    - Typically ***only one*** ETM Workstation per LAN.
    - Usually located next to PES, or SES.

ETM Common / Applications Introduction

- Architecture



… External System External System …

GCCS-A ETM Workstation (Windows NT)

Settings CLB agccs.ini

Client Software *

Settings options.prf

ETM Common App

**

Settings options.prf

ETM Common App

data **

ODBC

ODBC

GCCS-A Enterprise Server (Solaris)

Informix Database Server

agdb_etm_v1

agdb_admin_v1

agdb_data_v1

agdbe_e01_v1, …

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* *Client Software includes PowerTCP ActiveX controls (FTP, POP3 and SMTP), Oracle client software and Sybase client software.*

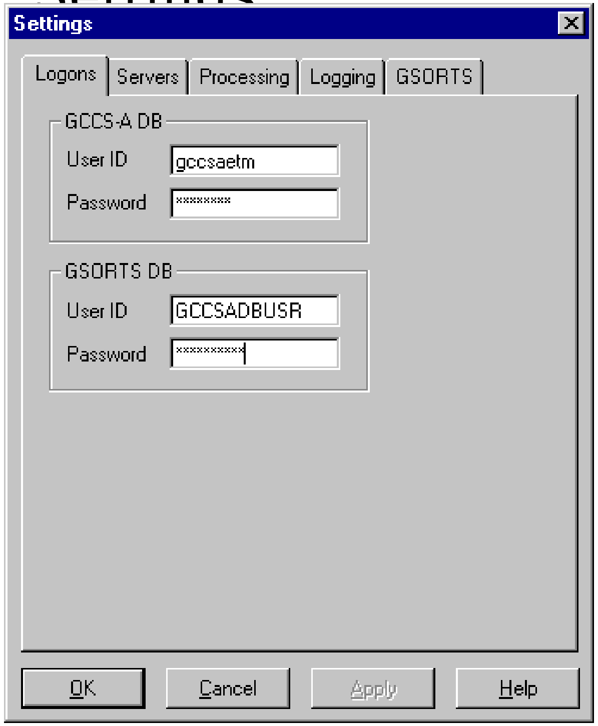
** *Most applications store data to local files. Some applications process data from memory, without storing it to local files.*

ETM Common / Applications Introduction

- ETM Common Overview.
  - Entering and Modifying Application Settings.
    - Define common settings.
      - GCCS-A Database Logon, GCCS-A Database Server.
      - Logging Level.
      - FTP, POP3, SMTP Time Outs.
    - Define application specific settings.
      - External system host name (IP address), user id, password.
      - External system data directories.
      - POP3 server name, SMTP server name, email addresses.
      - General configuration settings.

ETM Common / Applications Introduction

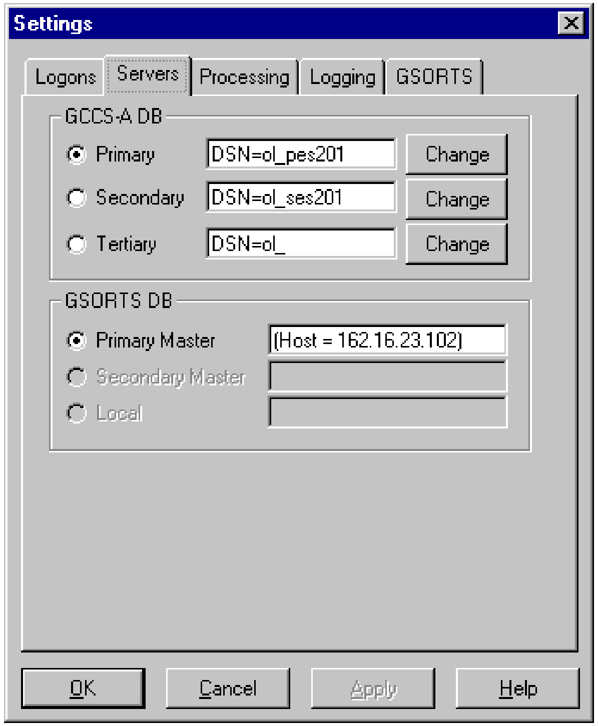
- (continued) ETM Common Overview.
  - (continued) Entering and Modifying Application Settings



Settings
Logons
Servers
Processing
Logging
GSORTS
OK
Cancel
Apply
Help

GCCS-A DB
User ID: gccsaetm
Password: ********

GSORTS DB
User ID: GCCSADBUSR
Password: **********



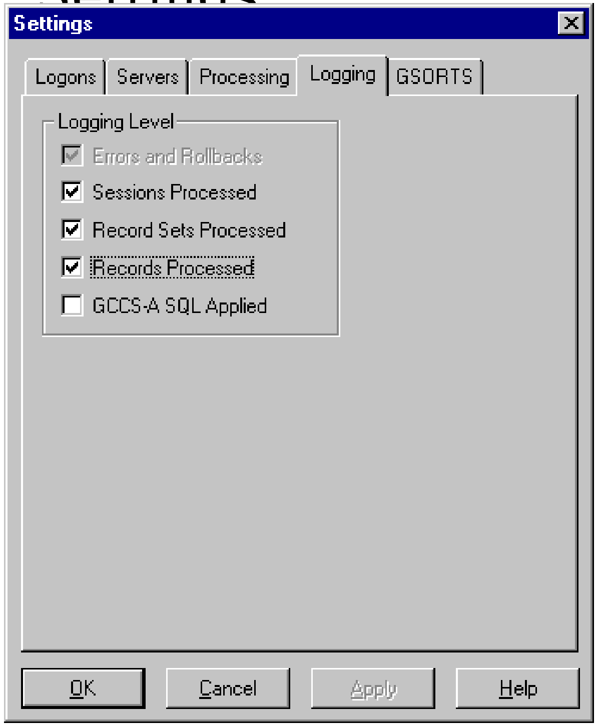
Settings
Logons
Servers
Processing
Logging
GSORTS
Change
Change
Change
OK
Cancel
Apply
Help

GCCS-A DB
● Primary: DSN=ol_pes201
○ Secondary: DSN=ol_ses201
○ Tertiary: DSN=ol_

GSORTS DB
● Primary Master: (Host = 162.16.23.102)
○ Secondary Master
○ Local

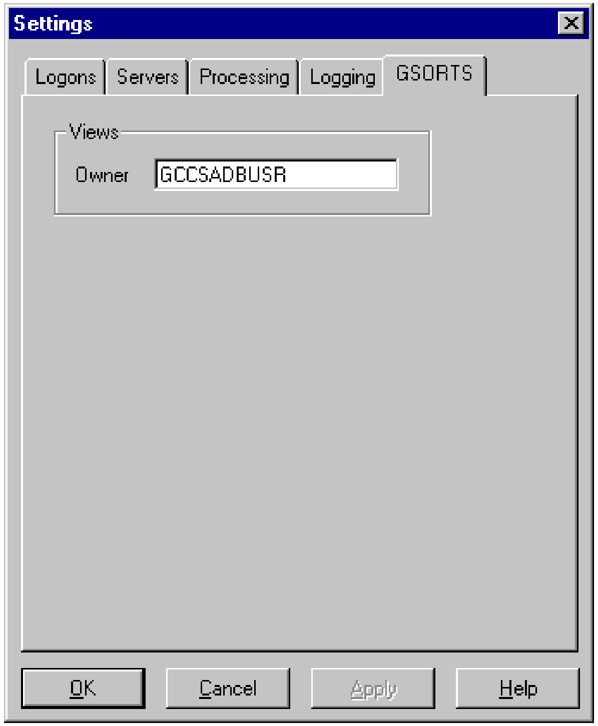
ETM Common / Applications Introduction

- (continued) ETM Common Overview.
  - (continued) Entering and Modifying Application Settings


Settings
Logons
Servers
Processing
Logging
GSORTS
OK
Cancel
Apply
Help

Logging Level

☑ Errors and Rollbacks
☑ Sessions Processed
☑ Record Sets Processed
☑ Records Processed
☐ GCCS-A SQL Applied


Settings
Logons
Servers
Processing
Logging
GSORTS
OK
Cancel
Apply
Help

Views

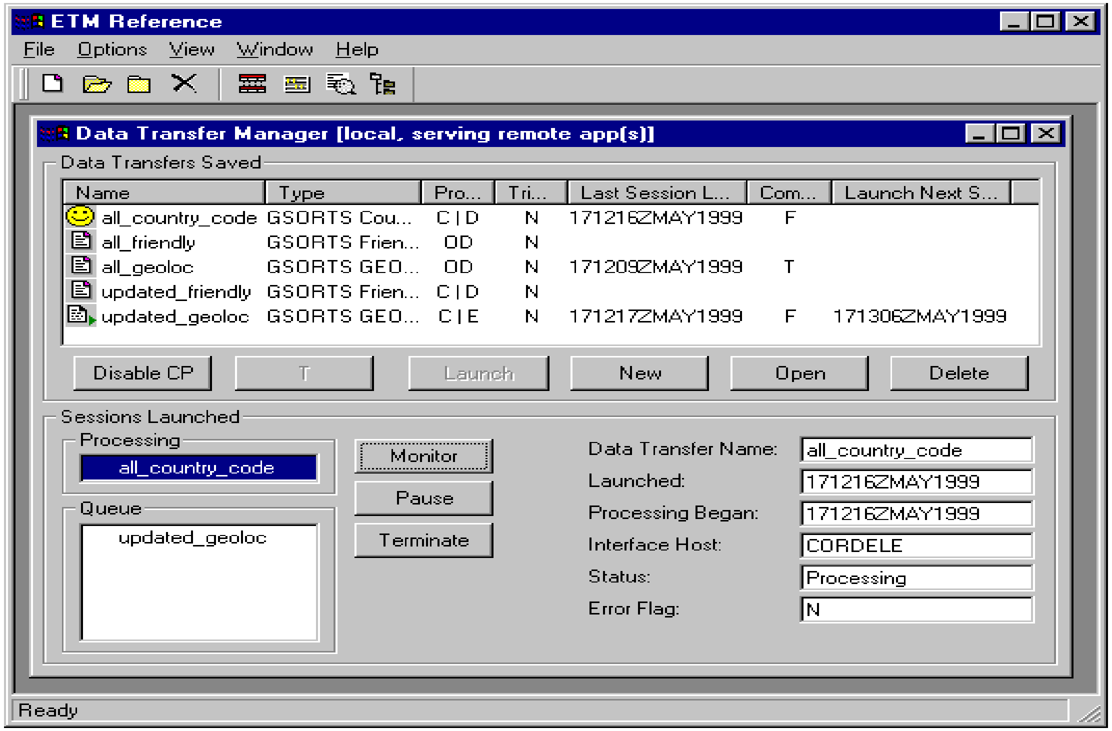
Owner GCCSADBUSR

ETM Common / Applications Introduction

- (continued) ETM Common Overview.
  - Data Transfer Management.
    - Define or modify a data transfer descriptions.
      - Configure unique data transfer properties, such a data transfer type, filtering, operational or exercise AGDBs for processing, etc.
    - Save data transfer descriptions, by name.
    - Launch data transfer processing.
    - Enable or disable automated data transfer session initiation.
      - Data transfer session processing may be automatically initiated.
        - » Continuous Processing.
        - » Triggering.
    - Monitor data transfer session processing.
    - Monitor FTP, POP3, SMTP and general application status messages.
    - Pause, resume, or terminate data transfer processing.

ETM Common / Applications Introduction

- (continued) ETM Common Overview.
  - (continued) Data Transfer Management.



ETM Reference
File Options View Window Help
Data Transfer Manager [local, serving remote app(s)]
Data Transfers Saved
Disable CP
T
Launch
New
Open
Delete
Sessions Launched
Processing
Queue
Monitor
Pause
Terminate
Ready

Name	Type	Pro...	Tri...	Last Session L...	Com...	Launch Next S...
all_country_code	GSORTS Cou...	C | D	N	171216ZMAY1999	F	
all_friendly	GSORTS Frien...	OD	N			
all_geoloc	GSORTS GEO...	OD	N	171209ZMAY1999	T	
updated_friendly	GSORTS Frien...	C | D	N			
updated_geoloc	GSORTS GEO...	C | E	N	171217ZMAY1999	F	171306ZMAY1999

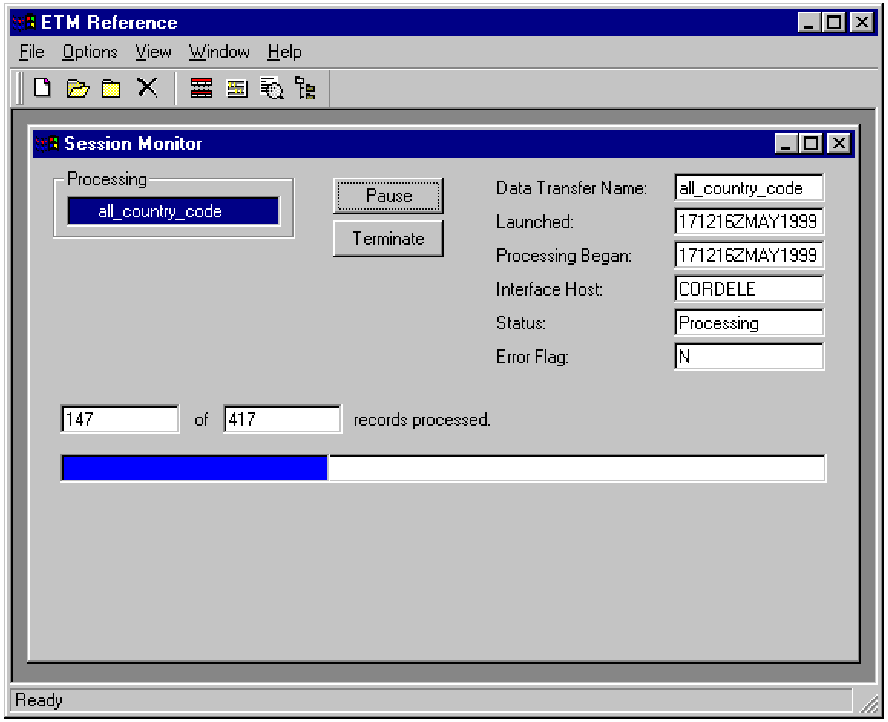
Processing: all_country_code

Queue: updated_geoloc

Data Transfer Name: all_country_code
Launched: 171216ZMAY1999
Processing Began: 171216ZMAY1999
Interface Host: CORDELE
Status: Processing
Error Flag: N

ETM Common / Applications Introduction

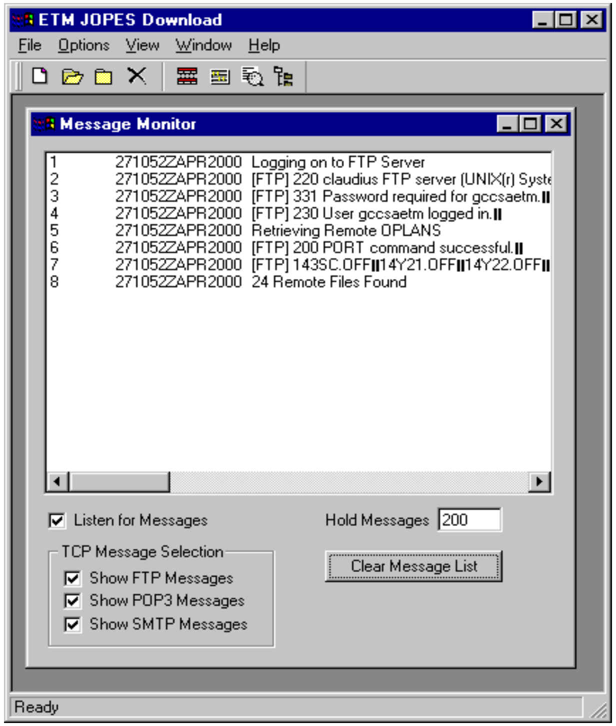
- (continued) ETM Common Overview.
  - (continued) Data Transfer Management.


ETM Reference
File Options View Window Help
Session Monitor
Processing
Pause
Terminate
Ready

Processing: all_country_code

Data Transfer Name: all_country_code
Launched: 171216ZMAY1999
Processing Began: 171216ZMAY1999
Interface Host: CORDELE
Status: Processing
Error Flag: N

147 of 417 records processed.


ETM JOPES Download
File Options View Window Help
Message Monitor
TCP Message Selection
Clear Message List
Ready

```
1    271052ZAPR2000  Logging on to FTP Server
2    271052ZAPR2000  [FTP] 220 claudius FTP server (UNIX(r) Syste
3    271052ZAPR2000  [FTP] 331 Password required for gccsaetm.▌▌
4    271052ZAPR2000  [FTP] 230 User gccsaetm logged in.▌▌
5    271052ZAPR2000  Retrieving Remote OPLANS
6    271052ZAPR2000  [FTP] 200 PORT command successful.▌▌
7    271052ZAPR2000  [FTP] 143SC.OFF▌▌14Y21.OFF▌▌14Y22.OFF▌▌
8    271052ZAPR2000  24 Remote Files Found
```

☑ Listen for Messages
Hold Messages: 200

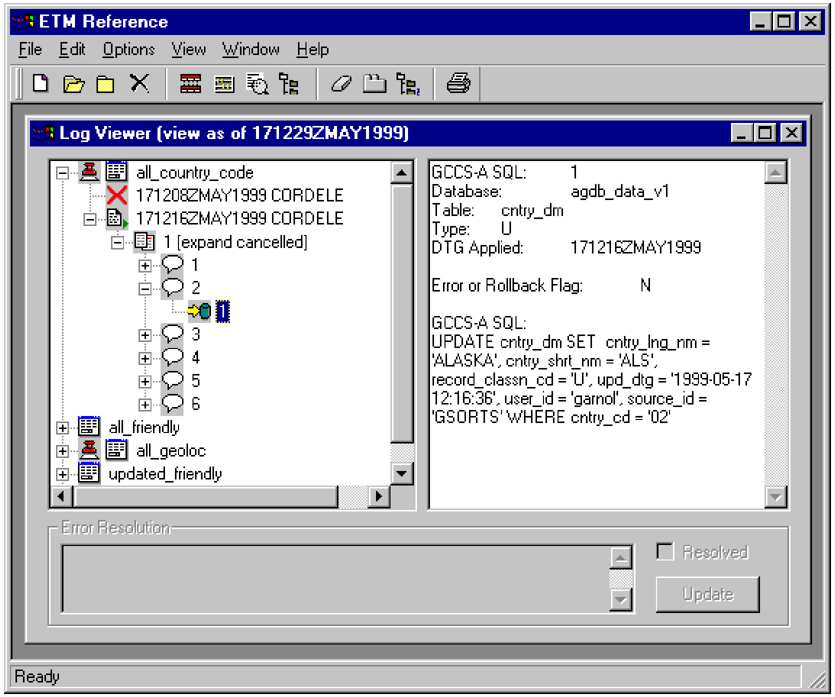
☑ Show FTP Messages
☑ Show POP3 Messages
☑ Show SMTP Messages

ETM Common / Applications Introduction

- (continued) ETM Common Overview.
  - Log Viewing and Cleanup.
    - The data processing logs are hierarchical (maintained in the ETM database).
      - Session.
      - Record Set.
      - Record.
      - GCCS-A SQL Applied.
    - View log entries.
    - Resolve data processing log entry errors.
    - Delete log entries.
    - Print log entries.

ETM Common / Applications Introduction

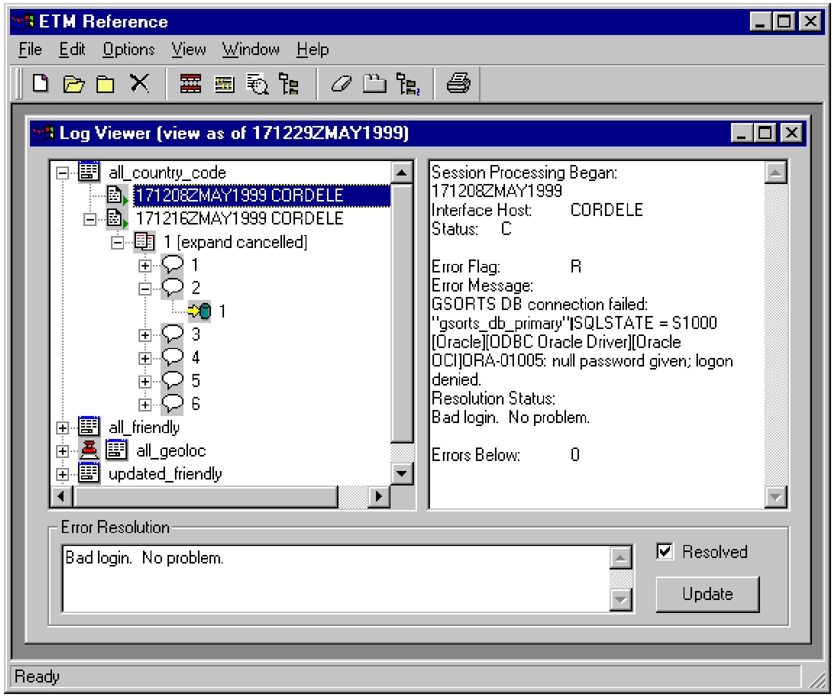
- (continued) ETM Common Overview.
  - (continued) Log Viewing and Cleanup.


ETM Reference
File Edit Options View Window Help
Log Viewer (view as of 171229ZMAY1999)
all_country_code
171208ZMAY1999 CORDELE
171216ZMAY1999 CORDELE
1 [expand cancelled]
1
2
1
3
4
5
6
all_friendly
all_geoloc
updated_friendly
Error Resolution
☐ Resolved
Update
Ready

```
GCCS-A SQL:        1
Database:          agdb_data_v1
Table:    cntry_dm
Type:     U
DTG Applied:       171216ZMAY1999

Error or Rollback Flag:         N

GCCS-A SQL:
UPDATE cntry_dm SET  cntry_lng_nm =
'ALASKA', cntry_shrt_nm = 'ALS',
record_classn_cd = 'U', upd_dtg = '1999-05-17
12:16:36', user_id = 'garnol', source_id =
'GSORTS' WHERE cntry_cd = '02'
```


ETM Reference
File Edit Options View Window Help
Log Viewer (view as of 171229ZMAY1999)
all_country_code
171208ZMAY1999 CORDELE
171216ZMAY1999 CORDELE
1 [expand cancelled]
1
2
1
3
4
5
6
all_friendly
all_geoloc
updated_friendly
Error Resolution
Update
Ready

```
Session Processing Began:
171208ZMAY1999
Interface Host:       CORDELE
Status:    C

Error Flag:           R
Error Message:
GSORTS DB connection failed:
"gsorts_db_primary"|SQLSTATE = S1000
[Oracle][ODBC Oracle Driver][Oracle
OCI]ORA-01005: null password given; logon
denied.
Resolution Status:
Bad login.  No problem.

Errors Below:         0
```

Error Resolution: Bad login. No problem.

☑ Resolved

ETM Common / Applications Introduction

- Key ETM Common application features:
  - Application settings.
  - Data Transfer types.
  - For each data transfer type …
    - How is the data transfer defined?
    - How is data transfer session processing initiated?
    - What data transfer processing is done?

ETM Admin Guide

- The ETM Admin Guide is a comprehensive guide to configuring and operating the ETM applications.
  - Section 1.3, Required ETM Configuration Tasks, provides an overview of the ETM configuration tasks which must be completed when GCCS-A is installed at a site, including:
    - Doing initial data loads of reference data.
    - Enabling automated interface processing.
  - Section 3, External Transaction Manager Functions, describes the common features of the ETM Common applications.
    - This must be read very carefully, as this provides key information which will help you use any of the ETM Common applications.
  - Sections 4 - 11 are dedicated to the 8 ETM Common applications.
    - Read the sections on the applications you’re interested in.

ETM Admin Guide

- Sections 4 - 11, one for each of the ETM Common applications, each have the same subsections:
  - x.1, Overview
    - Overview of the application’s functionality.
  - x.2, Entering and Modifying Settings
    - Descriptions of the application-unique settings and instructions for configuring these settings.
  - x.3, Data Transfer Management
    - Descriptions of the data transfers and instructions for defining these data transfers (section x.3.1).
    - Identifies those data transfer which have triggering defined and what sets off the trigger (section x.3.2).

ETM Admin Guide

- Sections 4 - 11, one for each of the ETM Common applications, each have the same subsections (continued):
  - x.4, Data Transfer Processing
    - Under-the-hood looks at what each data transfer does. This is very helpful for interpreting error messages reported in the data processing logs and figuring out what went wrong.
  - x.5, Session Monitoring
    - Describes what's available on the session monitor. For most applications this is just a counter and a status bar.
  - x.6, Log Viewing / Cleanup
    - Describes any application-unique log viewer features. For example, Section 5.6, for ETM JOPES Download, provides a rollup summary of the XTDS transactions processed and the SQL applied.

ETM Admin Guide

- Sections 4 - 11, one for each of the ETM Common applications, each have the same subsections (continued):
  - x.7, Other Functions
    - Instructions on how to do other things that may be required to operate the interface. For example, section 6.7, for ETM JOPES Upload, provides basic instructions on how process the update transaction file into JOPES.
  - x.8, Sustainability
    - Instructions on preparing for and handling a GCCS-A Primary Enterprise Server failure (section x.8.1).
    - Instructions on preparing for and handling a GCCS-A ETM Workstation failure (section x.8.2).

ETM Admin Guide

- Sections 4 - 11, one for each of the ETM Common applications, each have the same subsections (continued):
  - x.9, Recommended Configuration
    - Recommended settings (section x.9.1).
      - Contains checklists for gathering needed information from the external system POC (section x.9.1.1).
    - Recommended data transfers (section x.9.2).
  - x.10, Regular Administrative Tasks
    - The day-to-day work needed to keep the interface running smoothly. For example, view and clean out the data processing logs, delete unwanted data files which have been stored locally, etc.

ETM Reference

- Purpose:
  - Retrieve reference data from GSORTS.
- Settings:
  - GSORTS user id, password.
  - Select GSORTS Oracle database server.
  - GSORTS Views Owner
- Data transfer types:
  - GSORTS Country Code Reference
  - GSORTS GEOLOC Reference
  - GSORTS Unit Type Code Reference
  - GSORTS Friendly Unit Reference

ETM Reference

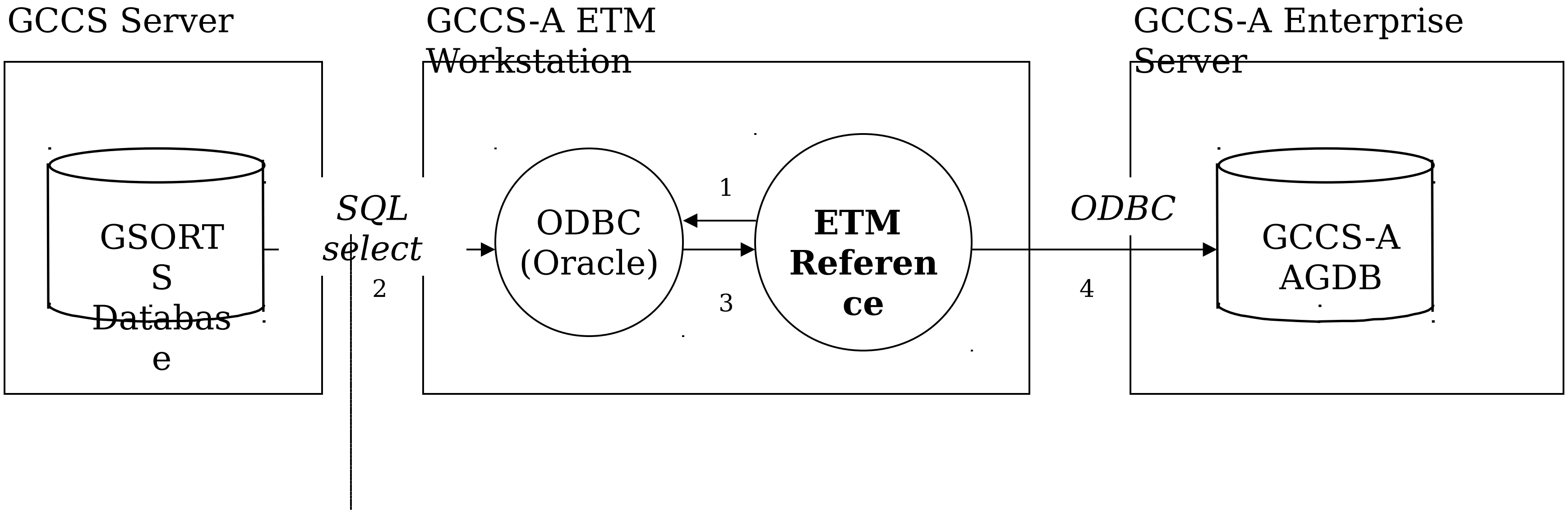
- Noteworthy prerequisite setup:
  - On the GSORTS database(s):
    - Create a user by which GCCS-A can query data from GSORTS.
    - Create required views, as this GCCS-A user (views to be owned by the GCCS-A user), from the SQL create statements in the SIA:
      - GSORTS_COUNTRY_CODE_REF
      - GSORTS_GEOLOC_REF
      - GSORTS_UNIT_TYPE_CODE_REF
      - GSORTS_FRIENDLY_UNIT_REF

ETM Reference

- Noteworthy prerequisite setup:
  - On the ETM Workstation(s):
    - Install the following products from the Oracle Client Software (Version 7.3.2.2.0) for Windows NT CD on the ETM Workstation:
      - Oracle Installer
      - Oracle7 ODBC Driver
      - SQL*Net Client
      - Oracle TCP/IP Adapter
    - Add GSORTS SQL*Net Database Aliases for the GSORTS database(s), via Oracle SQL*Net Easy Configuration.
    - Add ODBC data source(s) for GSORTS database(s).

ETM Reference / GSORTS Country Code Reference

- Purpose:
  - Retrieve country code reference data.



GCCS Server

GCCS-A ETM Workstation

GCCS-A Enterprise Server

GSORTS Database

SQL select

ODBC (Oracle)

ETM Reference

ODBC

GCCS-A AGDB

1

2

3

4

Query from Oracle view: **GSORTS_COUNTRY_CODE_REF**
Oracle view based on table: **CRTCD**

ETM Reference / GSORTS Country Code Reference

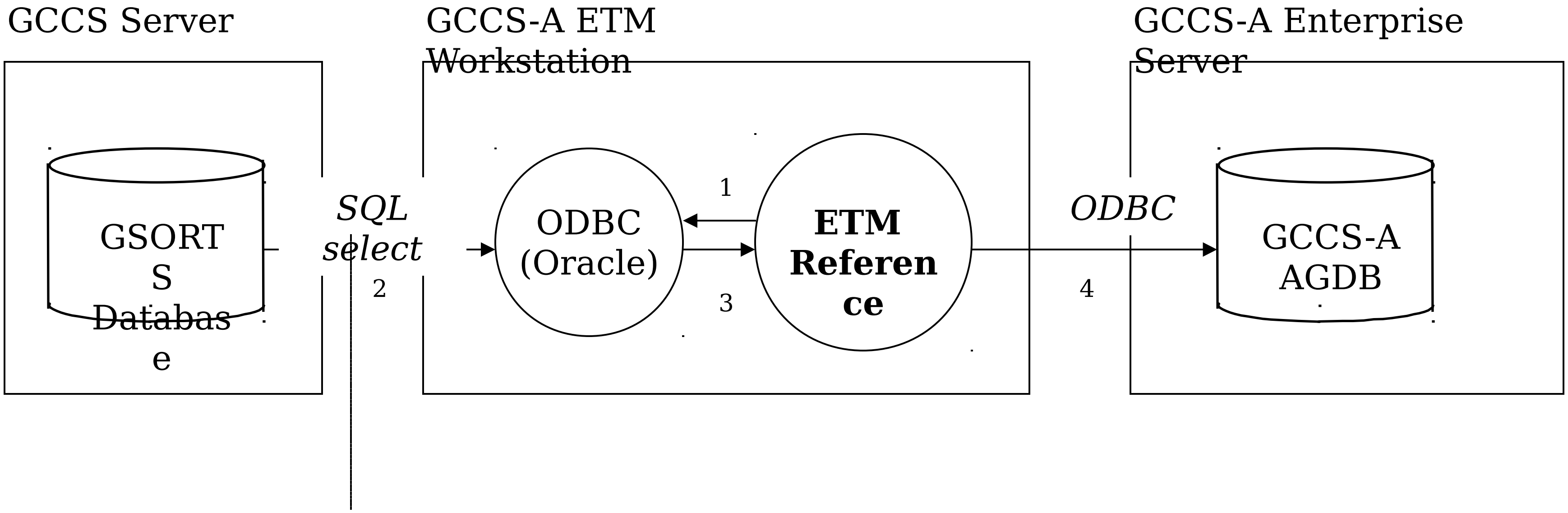
- The data transfer is defined as follows:
  - The user selects the exercise databases into which the data should be processed.
    - NOTE: The data is always processed into the operational database.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user launches a data transfer session.
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).

ETM Reference / GSORTS Country Code Reference

- Processing:
  - Query the GSORTS_COUNTRY_CODE REF view for all data. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Process into the operational database:
      - Insert or update the cntry_dm table.
    - Process into the selected exercise databases.
      - Insert or update the cntry_dm table.

ETM Reference / GSORTS GEOLOC Reference

- Purpose:
  - Retrieve GEOLOC reference data.


GCCS Server
GCCS-A ETM Workstation
GCCS-A Enterprise Server
GSORTS Database
SQL select
2
ODBC (Oracle)
1
3
ETM Reference
ODBC
4
GCCS-A AGDB

Query from Oracle view: **GSORTS_GEOLOC_REF**
Oracle view based on table: **GEO**

ETM Reference / GSORTS GEOLOC Reference

- The data transfer is defined as follows:
  - The user chooses a select or full query.
  - If the user chooses a select query, the user specifies the query parameters:
    - May query by Geographical AOR and/or Country Code.
    - Choose whether to query for (1) data updated since the last query, (2) data updated since a specified date time, or (3) all data.
  - The user selects the exercise databases into which the data should be processed.
    - The data is always processed into the operational database.
  - The user saves the data transfer.

ETM Reference / GSORTS GEOLOC Reference

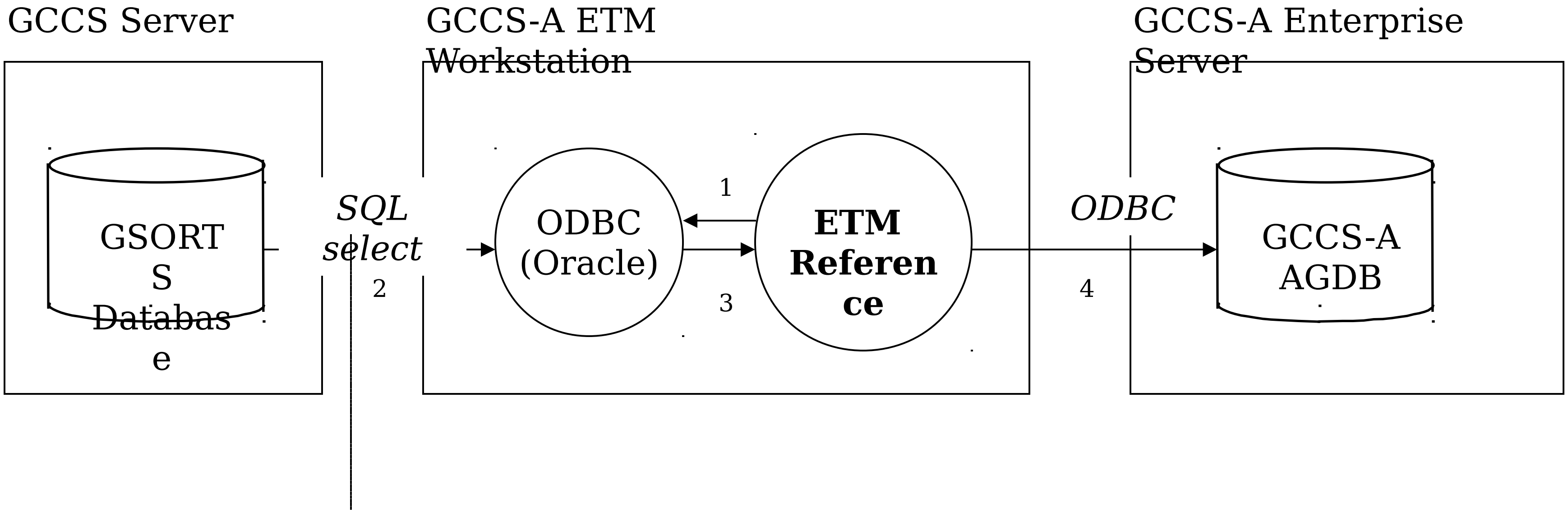
- The data transfer may be initiated as follows:
  - The user launches a data transfer session.
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).

ETM Reference / GSORTS GEOLOC Reference

- Processing:
  - Query the GSORTS_GEOLOC REF view for data, based on the defined query parameters. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Process into the operational database:
      - Insert or update the geoloc table.
    - Process into the selected exercise databases.
      - Insert or update the geoloc table.

ETM Reference / GSORTS Unit Type Code Reference

- Purpose:
  - Retrieve UTC reference data.



GCCS Server

GSORTS Database

SQL select

2

GCCS-A ETM Workstation

ODBC (Oracle)

1

3

ETM Reference

ODBC

4

GCCS-A Enterprise Server

GCCS-A AGDB

Query from Oracle view: **GSORTS_UNIT_TYPE_CODE_REF**
Oracle view based on table: **TUCHA**

ETM Reference / GSORTS Unit Type Code Reference

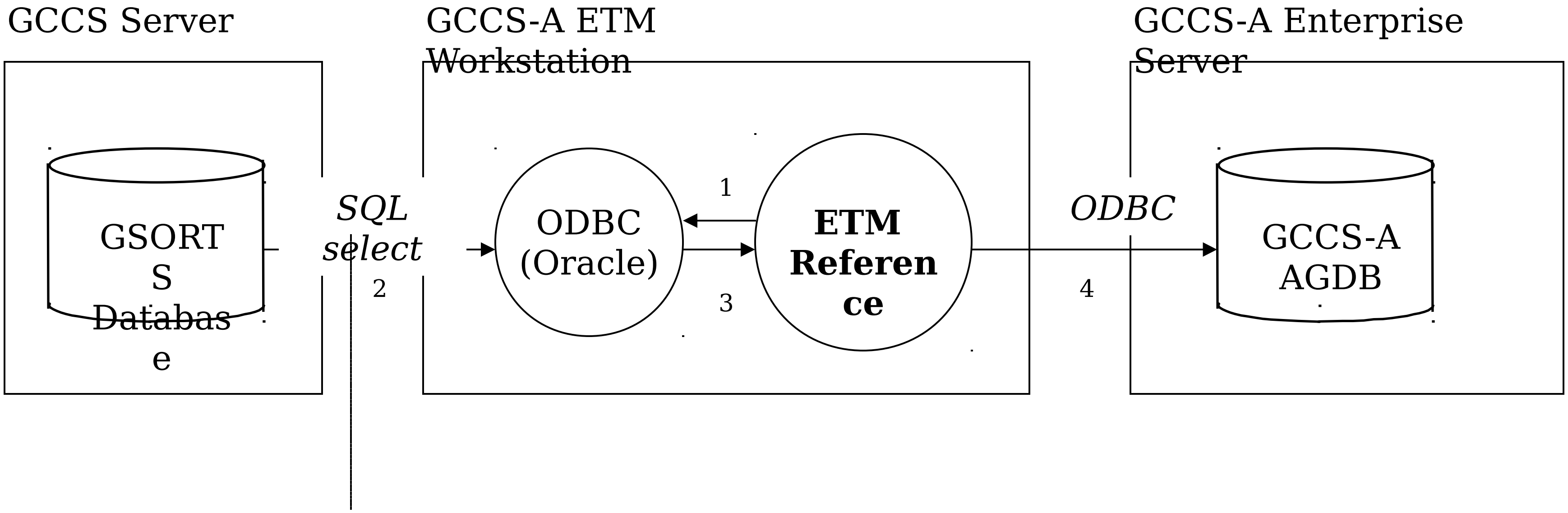
- The data transfer is defined as follows:
  - The user selects the exercise databases into which the data should be processed.
    - NOTE: The data is always processed into the operational database.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user launches a data transfer session.
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).

ETM Reference / GSORTS Unit Type Code Reference

- Processing:
  - Query the GSORTS_UNIT_TYPE_CODE_REF view for all data. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Process into the operational database:
      - Insert or update the utc table.
    - Process into the selected exercise databases.
      - Insert or update the utc table.

ETM Reference / GSORTS Friendly Unit Reference

- Purpose:
  - Retrieve friendly unit reference data.



GCCS Server

GSORTS Database

SQL select

2

GCCS-A ETM Workstation

ODBC (Oracle)

1

3

ETM Reference

ODBC

4

GCCS-A Enterprise Server

GCCS-A AGDB

Query from Oracle view: **GSORTS_FRIENDLY_UNIT_REF**
Oracle view based on tables: **BIDE, ORGLOCN, UNIT, UNITOPLN**

ETM Reference / GSORTS Friendly Unit Reference

- The data transfer is defined as follows:
  - The user chooses a select or full query.
  - If the user chooses a select query, the user specifies the query parameters:
    - May query by Army Only and/or OPLAN.
    - Choose whether to query for (1) data updated since the last query, (2) data updated since a specified date time, or (3) all data.
  - The user selects the exercise databases into which the data should be processed.
    - The data is always processed into the operational database.
  - The user saves the data transfer.

ETM Reference / GSORTS Friendly Unit Reference

- The data transfer may be initiated as follows:
  - The user launches a data transfer session.
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).

ETM Reference / GSORTS Friendly Unit Reference

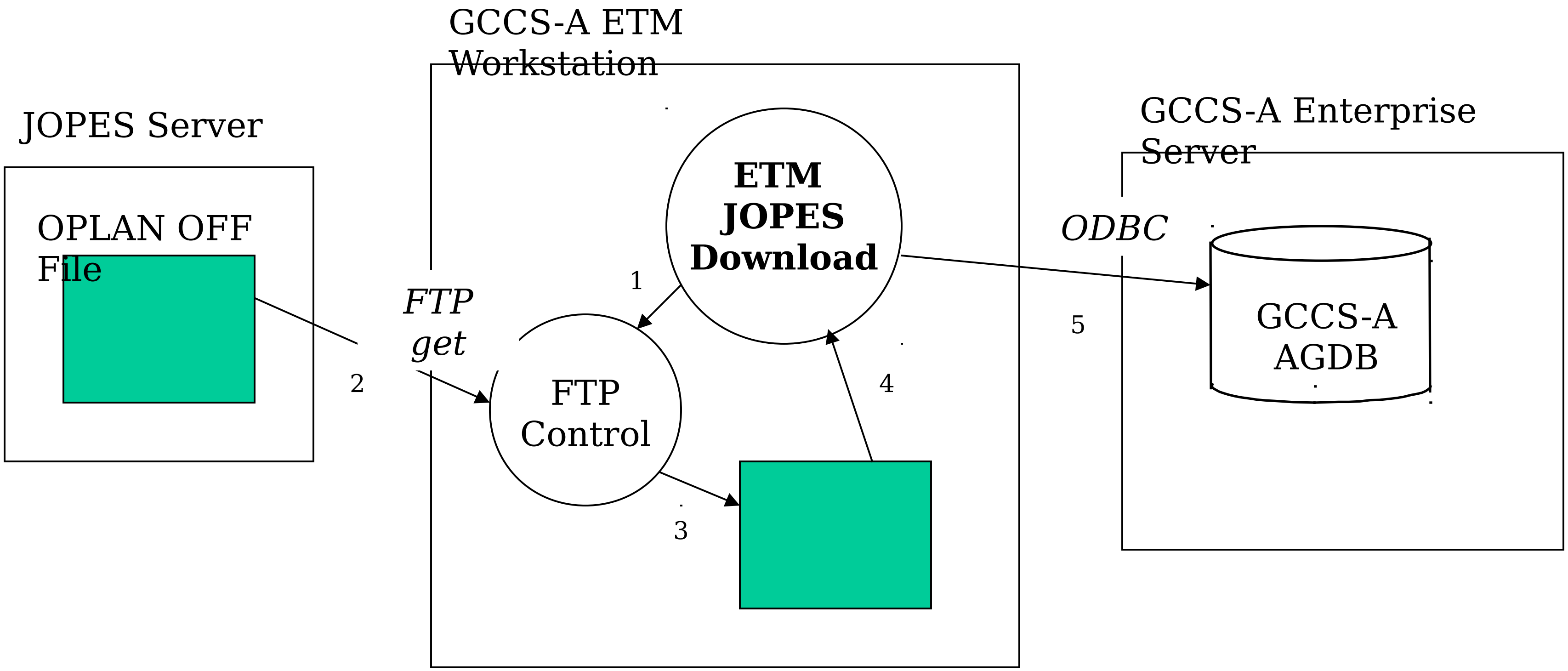
- Processing:
  - Query the GSORTS_FRIENDLY_UNIT_REF view for data, based on the defined query parameters. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Process into the operational database:
      - Insert or update the unit table.
      - Insert into the unit_status table.
    - Process into the selected exercise databases.
      - Insert or update the unit table.
      - Insert into the unit_status table.

ETM JOPES Download

- Purpose:
  - Retrieve and process TPFDD and force module data from JOPES, as OPLAN OFF files and update files.
- Settings:
  - JOPES Server host name, user id, password.
  - OPLAN OFF directory.
  - Subscriber directory.
  - JOPES look ahead value for use in decade and century resolution for the single digit years used in JOPES Julian dates.
- Data transfer types:
  - JOPES OPLAN OFF
  - JOPES Updates

ETM JOPES Download / JOPES OPLAN OFF

- Purpose:
  - Retrieve and process a JOPES OPLAN OFF file.


GCCS-A ETM Workstation
JOPES Server
OPLAN OFF File
GCCS-A Enterprise Server
ETM JOPES Download
ODBC
1
FTP get
2
FTP Control
3
4
5
GCCS-A AGDB

ETM JOPES Download / JOPES OPLAN OFF

- The data transfer is defined as follows:
  - The user selects a remote or local OPLAN OFF file.
  - The user associates the OPLAN with an operational or exercise AGDB.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user launches a data transfer session.

ETM JOPES Download / JOPES OPLAN OFF

- Processing:
  - If processing a remote OPLAN OFF file, FTP get the file.
  - Process the OPLAN OFF file, as follows.
    - Identify the OPLAN number.
    - Determine the associated operational or exercise AGDB.
      - If no AGDB is associated, log an error and terminate processing.
    - Connect to the associated operational or exercise AGDB.
    - Check whether or not the OPLAN is loaded in the AGDB.
      - If the OPLAN is already loaded, log an error and terminate processing.
    - Process the PLNUAT_C_3_5 and CDAYHT_n transactions; processing shall add a record to the AGDB oplan table.
    - Process all those transactions which GCCS-A can process, into the appropriate AGDB database tables, primarily msn_info, msn_schd, uln, uln_msn, force_module, and force_module_uln.

ETM JOPES Download / JOPES OPLAN OFF

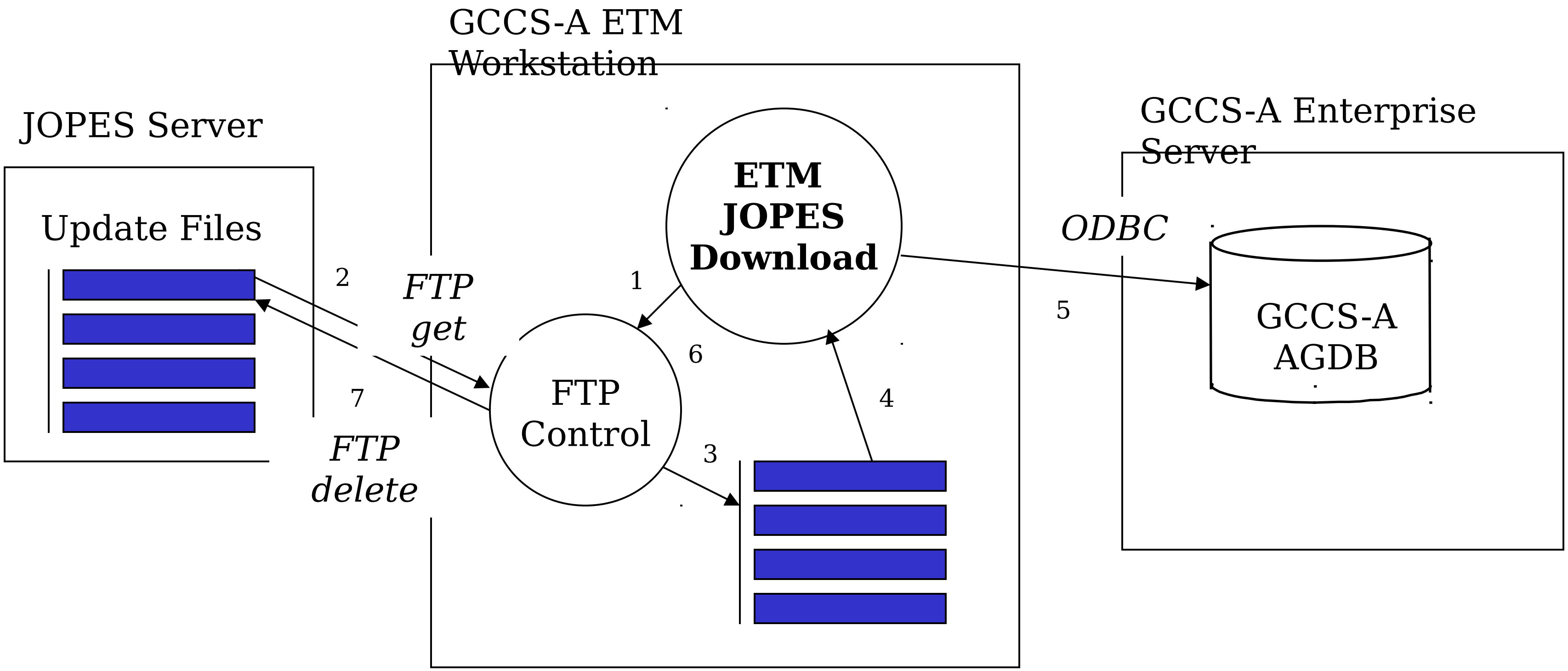
- Processes the following transactions, into the AGDB.
  - Plan admin transactions.
    - PLNUAT_C_3_5, CDAYHT_n.
  - Schedule transactions.
    - SCHDET_A, SCHDET_B, SCHDET_C, SCHDET_D, DICHET_C.
  - Force Requirement transactions.
    - ULNUBT_A, ULNUBT_C, ULNUBT_D.
  - Allocation and Manifest transactions.
    - MANIET_A, MANIET_C, MANIET_D.
    - MANIET_E, MANIET_F, MANIET_G.

ETM JOPES Download / JOPES OPLAN OFF

- (continued) Processes the following transactions, into the AGDB.
  - Force Module transactions (force modules and force module ULNs).
    - INDXDT_n_F_[n, D], DESCDT_n_[n, R], TITLDT_n_A_n, JJDSDT_n_[A, B, F, X]_n, DLFMDT_n_n_n.
- All other transactions are ignored (go unprocessed).

ETM JOPES Download / JOPES Updates

- Purpose:
  - Retrieve and process a JOPES Update files.


GCCS-A ETM Workstation
JOPES Server
Update Files
GCCS-A Enterprise Server
ETM JOPES Download
FTP get
FTP delete
FTP Control
ODBC
GCCS-A AGDB
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ETM JOPES Download / JOPES Updates

- The data transfer is defined as follows:
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing when one or more update files are available for retrieval and processing (On Demand, Triggering Enabled).
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

ETM JOPES Download / JOPES Updates

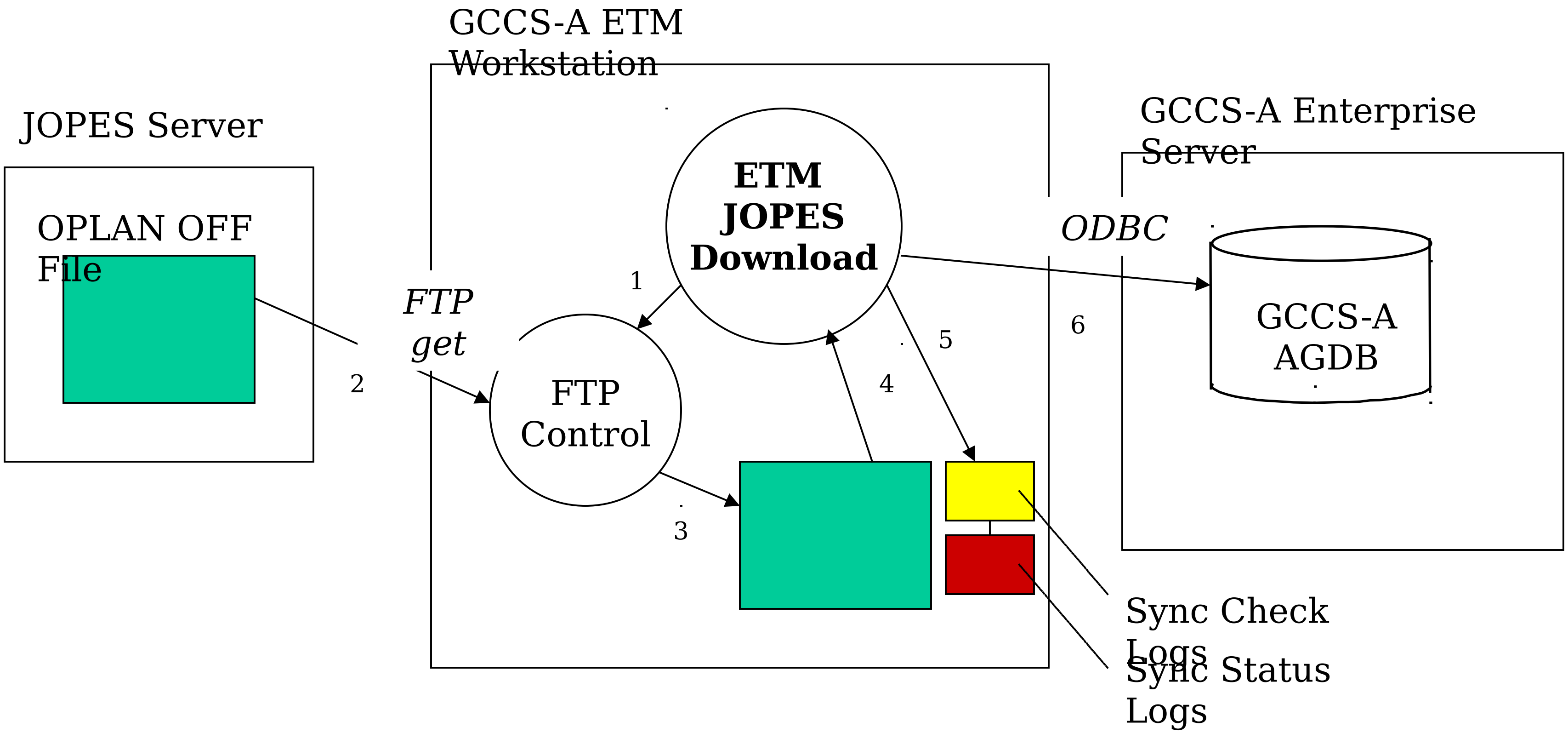
- Data Transfer Processing:
  - FTP get the update files, in chronological order.
  - Process each transaction individually, as follows.
    - Identify the OPLAN number.
    - Determine the associated operational or exercise AGDB.
      - If no AGDB is associated, terminate processing.
    - Connect to the associated operational or exercise AGDB.
    - Check whether or not the OPLAN is loaded in the AGDB.
      - If the OPLAN is not loaded, log an error and terminate processing.
    - If GCCS-A can process this transaction, process the transaction into the appropriate AGDB database tables, primarily msn_info, msn_schd, uln, uln_msn, force_module, and force_module_uln.
  - As processing of each update file finishes, FTP delete the file.

ETM JOPES Download / JOPES Updates

- Processes the same transactions as the JOPES OPLAN OFF data transfer.

ETM JOPES Download / JOPES OPLAN Sync

- Purpose:
  - Sync GCCS-A OPLAN data against a JOPES OPLAN OFF file.



GCCS-A ETM Workstation
JOPES Server
OPLAN OFF File
GCCS-A Enterprise Server
ETM JOPES Download
ODBC
FTP get
FTP Control
GCCS-A AGDB
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Sync Check Logs
Sync Status Logs

ETM JOPES Download / JOPES OPLAN Sync

- The data transfer is defined as follows:
  - The user selects a remote or local OPLAN OFF file.
  - The user selects the sync mode as either (1) Check or (2) Check and Update.
  - The user associates the OPLAN with an operational or exercise AGDB.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user launches a data transfer session.

ETM JOPES Download / JOPES OPLAN Sync

- Processing:
  - If processing a remote OPLAN OFF file, FTP get the file.
  - Process the OPLAN OFF file, as follows.
    - Identify the OPLAN number.
    - Determine the associated operational or exercise AGDB.
      - If no AGDB is associated, log an error and terminate processing.
    - Connect to the associated operational or exercise AGDB.

(continued on the next slide)

ETM JOPES Download / JOPES OPLAN Sync

- Process the OPLAN OFF file, as follows (continued).
  - Sync the JOPES transactions - PLNUAT_C_3_5 and CDAYHT_n, then ULNUBT_A, SCHDET_A, MANIET_A, MANIET_E, JJDSDT_n_A_n, JJDSDT_n_B_n and JJDSDT_n_F_n.
    - Check the associated GCCS-A database to determine whether the transaction data is in the GCCS-A database. Each SQL check is logged to a sync checks log file. The sync status is logged to a sync status log file.
    - Insert or update the data in the AGDB from the JOPES transaction (to bring the AGDB back in sync), if the GCCS-A data is out of sync with JOPES and the sync mode is set to check and update.
  - Sync the GCCS-A records not in the JOPES OPLAN OFF file - uln, uln_msn, msn_info, force_module, force_module_uln.
    - Check data which is in GCCS-A but is not in the JOPES OPLAN OFF file. The sync status is logged to a sync status log file.
    - Delete the data from the AGDB (to bring the AGDB back in sync), if the GCCS-A data is out of sync with JOPES and the sync mode is set to check and update.

ETM JOPES Download / JOPES OPLAN Sync

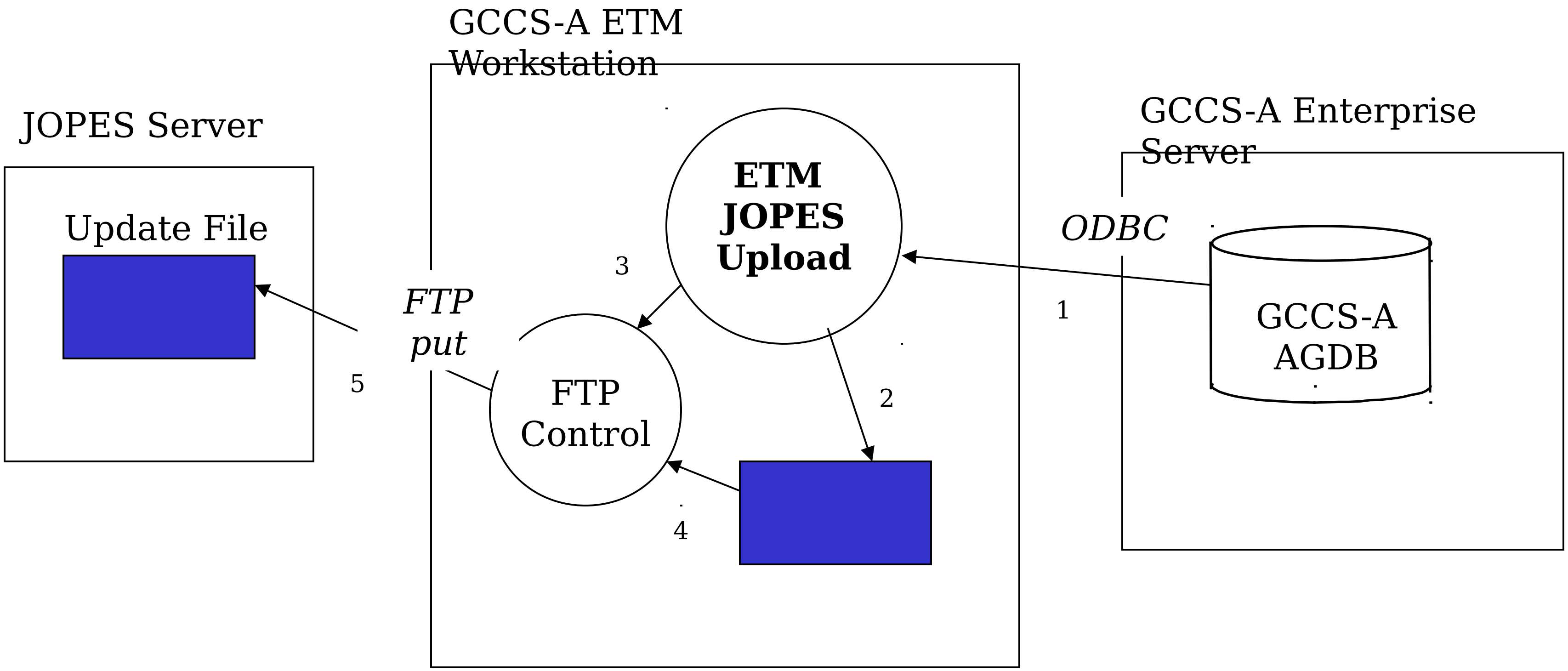
- Sync check and status logs are written to the segment’s data directory.
  - Sync check and status logs may be imported into a MS Access database.
- Inserts, updates and deletes done to bring GCCS-A back in sync with JOPES are written to the ETM Common logs, as GCCS-A SQL Applied log entries.

ETM JOPES Upload

- Purpose:
  - Generate and send schedule and manifest (and allocation) data to JOPES.
- Settings:
  - JOPES Server host name, user id, password.
  - Update directory.
  - JOPES look ahead value for use in decade and century resolution for the single digit years used in JOPES Julian dates.
- Data transfer types:
  - JOPES Update

ETM JOPES Upload / JOPES Update

- Purpose:
  - Generate and send schedule and manifest (and allocation) data.


GCCS-A ETM Workstation
JOPES Server
Update File
GCCS-A Enterprise Server
ETM JOPES Upload
ODBC
GCCS-A AGDB
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FTP put
FTP Control
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ETM JOPES Upload / JOPES Update

- The data transfer is defined as follows:
  - The user selects an OPLAN.
  - The user selects the missions for which mission and manifest data is to be sent up to JOPES.
  - The user determines whether to not to send the file to JOPES, via FTP.
  - The user saves the data transfer.
- How is data transfer session processing initiated?
  - The user launches a data transfer session.

ETM JOPES Upload / JOPES Update

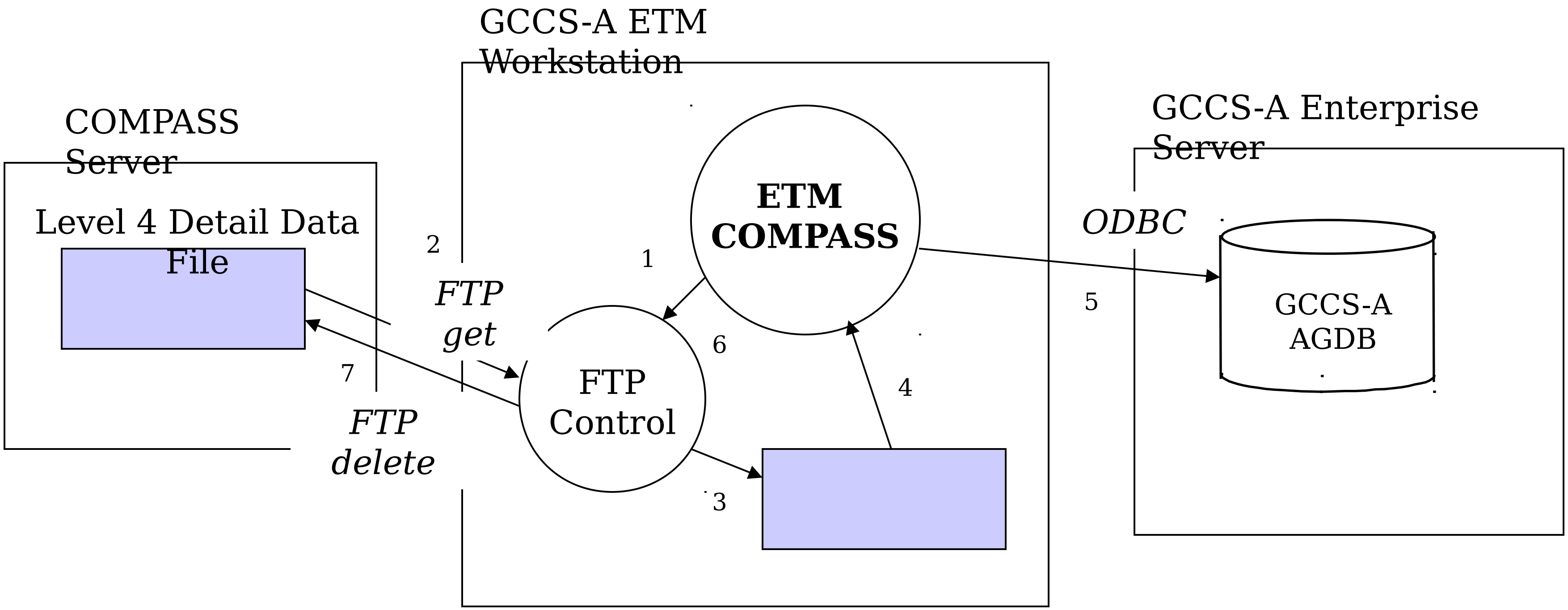
- Processing:
  - Generate schedule and manifest (and allocation) data for selected missions.
    - Generate schedule and manifest data for a mission, as follows:
      - Query AGDB for msn_info, msn_schd, uln_msn records for this mission.
      - Generate a SCHDET_D to delete the carrier.
      - Generate a SCHDET_A to add the carrier.
      - If there are uln_msn records for this mission, generate the appropriate MANIET transactions.
        - » Generate a MANIET_E for the estimates.
        - » Generate a MANIET_A for the actuals.
  - If so specified by user in the data transfer description, send the JOPES schedule and manifest update file, via FTP.

ETM COMPASS

- Purpose:
  - Retrieve and process Level 4 detail data from COMPASS.
- Settings:
  - COMPASS Server host name, user id, password.
  - COMPASS Level 4 detail data directory.
- Data transfer types:
  - COMPASS Level 4 Detail Data

ETM COMPASS / COMPASS Level 4 Detail Data

- Purpose:
  - Retrieve and process Level 4 detail data from COMPASS.


GCCS-A ETM Workstation
COMPASS Server
Level 4 Detail Data File
GCCS-A Enterprise Server
ETM COMPASS
FTP Control
ODBC
GCCS-A AGDB
FTP get
FTP delete
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ETM COMPASS / COMPASS Level 4 Detail Data

- The data transfer is defined as follows:
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing when one or more data files are available for retrieval and processing (On Demand, Triggering Enabled).
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

ETM COMPASS / COMPASS Level 4 Detail Data

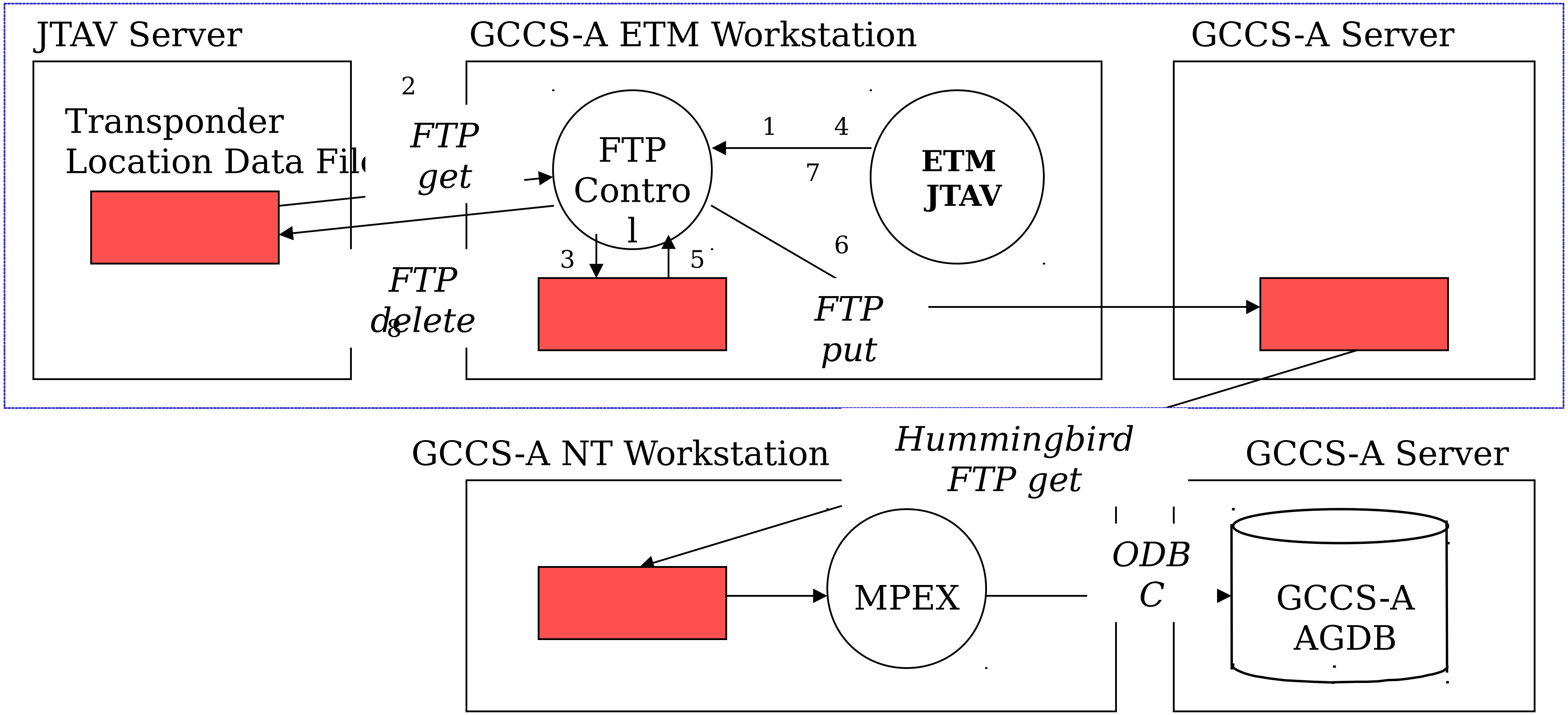
- Processing:
  - FTP get the Level 4 detail data file.
  - Process the Level 4 detail data file, as follows:
    - Read all the file’s records into memory.
    - Combine like records (sum item quantities).
    - Process each record, as follows:
      - Determine the associated operational or exercise database, by OPLAN.
        - If no database is associated, terminate record processing.
      - Connect to the associated operational or exercise database.
      - If the ULN is in the database, process into the mpt_pln_ccc_dtails table.
        - Only insert or update the database with changes - does not update the database if there is no change in the record data.
        - If the ULN is not in the database, log a record error and terminate processing.
    - For every OPLAN encountered in the file, delete all data from the mpt_pln_ccc_dtails table which is in the database but not in the file.
  - FTP delete the Level 4 detail data file.

ETM JTAV

- Purpose:
  - Retrieve Transponder Location data file, for MPEX processing.
- Settings:
  - JTAV Server host name, user id, password.
  - Transponder Location data directory.
- Data transfer types:
  - JTAV Transponder Location

ETM JTAV / JTAV Transponder Location

- Purpose:
  - Retrieve Transponder Location data file, for MPEX processing.


JTAV Server
GCCS-A ETM Workstation
GCCS-A Server
Transponder
Location Data Fil
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FTP
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FTP
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ETM
JTAV
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5
6
FTP
delete
8
FTP
put
GCCS-A NT Workstation
Hummingbird
FTP get
GCCS-A Server
MPEX
ODB
C
GCCS-A
AGDB

ETM JTAV / JTAV Transponder Location

- The data transfer is defined as follows:
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing when one or more data files are available for retrieval and processing (On Demand, Triggering Enabled).
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

ETM JTAV / JTAV Transponder Location

- Processing:
  - FTP get the Transponder Location data file from the JTAV Server.
  - FTP put the Transponder Location data file to the GCCS-A Server.
  - FTP delete the Transponder Location data file from the JTAV Server.

ETM MIDB

- Purpose:
  - Retrieve target data from the MIDB GMI database.
- Settings:
  - MIDB user id, password.
  - Select MIDB Sybase database server.
  - MIDB version 1.4.4 or 2.0?
  - For an MIDB 2.0 Sybase SELECT, Outer Join with TGT_SYS for Target System Type?
  - Process Records with an ‘Undetermined’ Coordinate Datum? If so, choose the assumed coordinate datum.
- Data transfer types:
  - MIDB (GMI) Targeting Reference

ETM MIDB

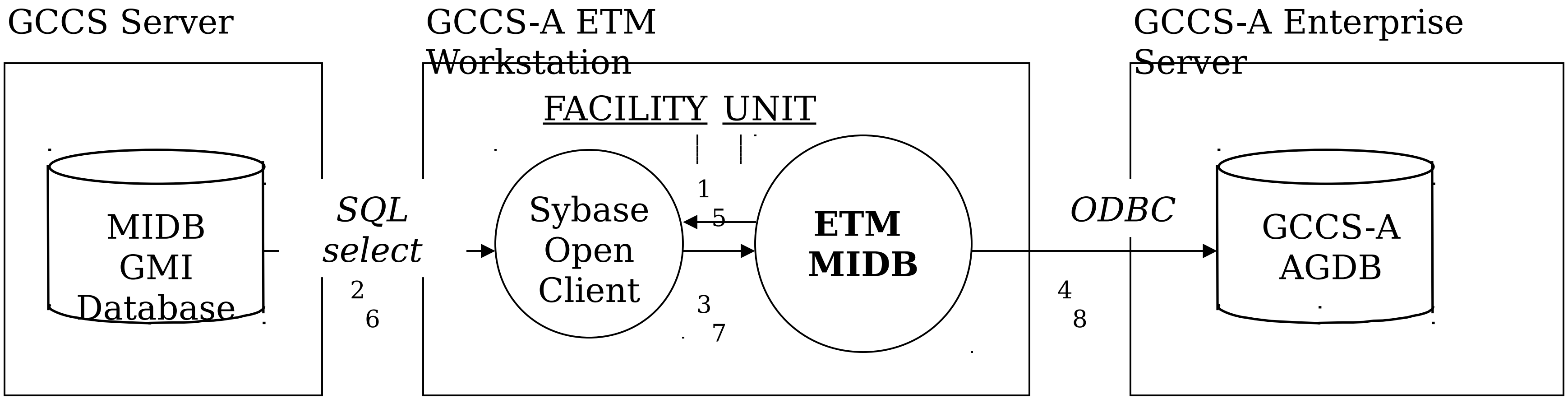
- Noteworthy prerequisite setup:
  - On the MIDB GMI database(s):
    - Create a GCCS-A user in the MIDB GMI database.
    - Grant this GCCS-A user select permissions to the following tables:
      - MIDB 1.4.4:
        - » XIDBF
        - » XIDBU
        - » XIDBUL
      - MIDB 2.0:
        - » FAC
        - » UNIT
        - » FAC_TIE
        - » UNIT_TIE
        - » TGT_SYS

ETM MIDB

- Noteworthy prerequisite setup:
  - On the ETM Workstation(s):
    - Install the following products from the Sybase Products for PC Windows 95 and Window NT Open Client/C Developer’s Toolkit CD (Version 11.1.1) on the ETM Workstation:
      - Network Library for Windows Sockets - TCP/IP
    - Add Sybase Open Client Interfaces for the MIDB database server, via Sybase DSEDIT utility.

ETM MIDB / MIDB (GMI) Targeting Reference

- Purpose:
  - Retrieve target data.


GCCS Server
GCCS-A ETM Workstation
GCCS-A Enterprise Server
MIDB GMI Database
SQL select
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FACILITY
UNIT
Sybase Open Client
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7
ETM MIDB
ODBC
4
8
GCCS-A AGDB

FACILITY: MIDB 1.4.4 Query from Sybase table: **XIDBF**
MIDB 2.0 Query from Sybase tables: **FAC, FAC_TIE, TGT_SYS**

UNIT: MIDB 1.4.4 Query from Sybase tables: **XIDBU, XIDBUL**
MIDB 2.0 Query from Sybase tables: **UNIT, UNIT_TIE, TGT_SYS**

ETM MIDB / MIDB (GMI) Targeting Reference

- The data transfer is defined as follows:
  - The user chooses a select or full query.
  - If the user chooses a select query, the user specifies the query parameters:
    - May query by Country Codes and/or BE Numbers and UNIT Ids.
    - Choose whether to query for (1) data updated since the last query, (2) data updated since a specified date time, or (3) all data.
    - Choose the Record Status codes to query for.
  - The user selects the exercise databases into which the data should be processed.
    - The data is always processed into the operational database.
  - The user saves the data transfer.

ETM MIDB / MIDB (GMI) Targeting Reference

- The data transfer may be initiated as follows:
  - The user launches a data transfer session.
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).

ETM MIDB / MIDB (GMI) Targeting Reference

- Processing:
  - Query the FACILITY tables for data, based on the defined query parameters. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Convert the target location to the WGS-84 coordinate datum.
    - Process into the operational database:
      - Insert or update the tr_id table.
    - Process into the selected exercise databases.
      - Insert or update the tr_id table.

ETM MIDB / MIDB (GMI) Targeting Reference

- Processing (continued):
  - Query the UNIT tables for data, based on the defined query parameters. The data is stored in memory.
  - For each row retrieved:
    - Validate the data.
    - Convert the target location to the WGS-84 coordinate datum.
    - Process into the operational database:
      - Insert or update the tr_id table.
    - Process into the selected exercise databases.
      - Insert or update the tr_id table.

ETM Targeting

- Purpose:
  - Interface with CTAPS or TBMCS.
    - Send nominations generated by the Targeting application.
    - Receive and process air tasking orders, for use by the Targeting application.
- Settings:
  - Choose the system you are interfacing with:
    - CTAPS 5.2.2 (send CTL, receive A658)
    - CTAPS 5.2.3 (send C112, receive A658)
    - TBMCS (send C112, receive A659)

ETM Targeting

- Settings (continued)
  - For sending a CTL or C112:
    - FTP host, user id, password, directory.
    - Email SMTP server, to address, from address.
    - Next Army Request Number (ARN) Sequence Number.
  - If you’re sending a CTL, you also have the following settings:
    - CTL Mode - Peace or War.
    - Next CTL ID
  - For receiving an A658 or A659:
    - FTP host, user id, password, directory.
    - Email POP3 server, user id, password.
    - To email send status on messages processed: SMTP server, addresses.

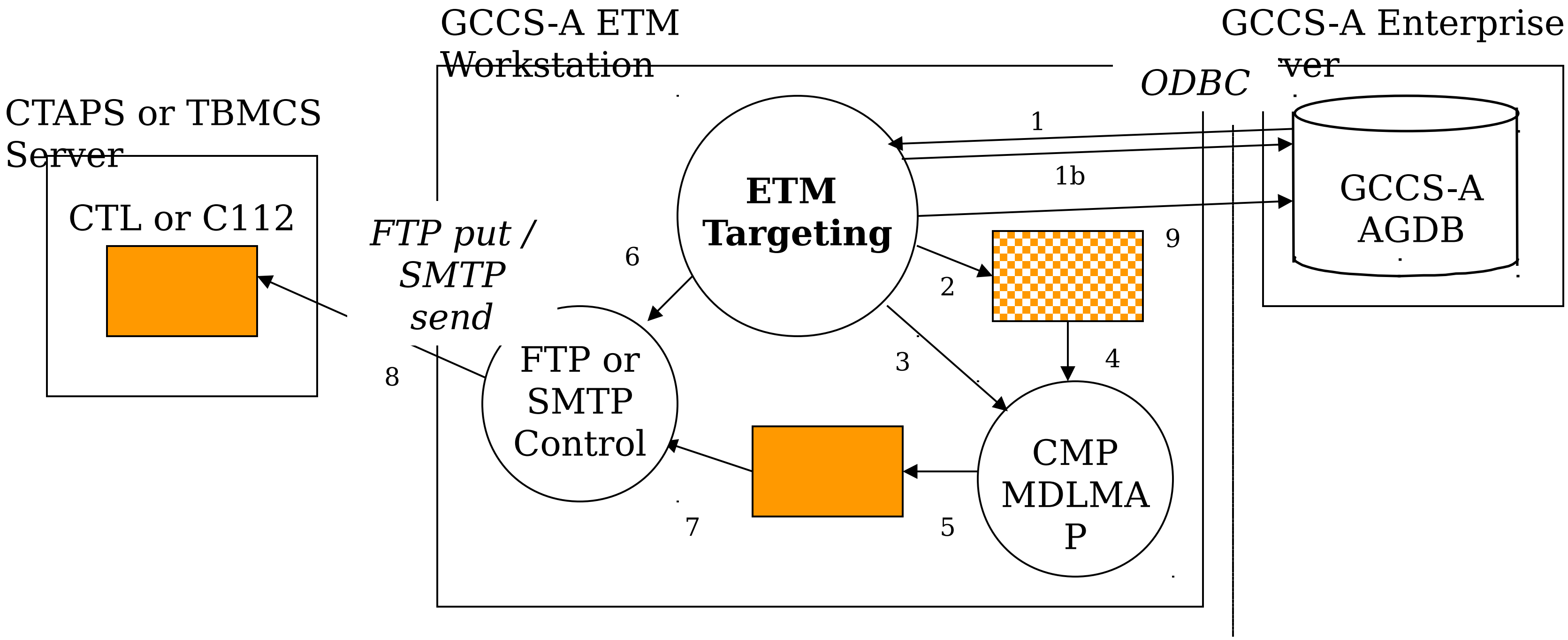
ETM Targeting

- Data transfer types:
  - User Specified List - C112 *
    - This is the standard recommended means to send nominations. The nominations marked through the Targeting application are sent.
  - Full - C112 *
  - Organization Specific - C112 *
    - The above 2 data transfer types are alternate means to send nominations, for use under special circumstances.
  - ATO (A659) or ATOCONF (A658)
    - This data transfer processes an incoming air tasking order.

* *Though these 3 data transfers which send nominations are identified as "C112", they will send either a CTL or C112, based on the interface selected in the application settings. The "C112" designation is merely a throwback to a time when we could only send nominations as a C112.*

ETM Targeting / User Specified List - C112

- Purpose:
  - Send nominations marked by the Targeting user. These are marked through the Targeting application.


GCCS-A ETM Workstation
GCCS-A Enterprise ver
ODBC
CTAPS or TBMCS Server
CTL or C112
FTP put / SMTP send
ETM Targeting
GCCS-A AGDB
FTP or SMTP Control
CMP MDLMAP
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SELECT * FROM tr_nomination WHERE ato_status_cd = 4

ETM Targeting / User Specified List - C112

- The data transfer is defined as follows:
  - The user selects the method of transmission - FTP, Email, or Disk.
  - The user selects the operational or exercise database to query for nomination data.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing when one or more nominations have been marked to be sent (On Demand, Triggering Enabled).
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

ETM Targeting / User Specified List - C112

- Target nominations are marked through the Targeting application, by opening the Nomination Worksheet, selecting the target nominations to be sent, then selecting the "Mark for TGTINFOREP" from the menu.
  - For more information see the D3.2 Targeting SUM.

ETM Targeting / User Specified List - C112

- The “User Specified List - C112” data transfer is designed to support the daily targeting process.
  - ETM Targeting will automatically send nominations when:
    1. The ETM Targeting application is running.
    2. A “User Specified List - C112” data transfer is defined.
    3. Triggering is enabled on this data transfer
    4. **A Targeting user does a “Mark for TGTINFOREP”.**
  - With this configuration, the ETM Targeting application will run in the background, without any user intervention.
    - The Targeting user can initiate a CTL or C112 transfer through the Targeting application - “Mark for TGTINFOREP”
    - Furthermore, the Targeting user application can view the status of the CTL or C112 transfer through the Targeting application.
      - For more information see the D3.2 Targeting SUM.

ETM Targeting / User Specified List - C112

- Processing:
  - Query the database for nomination data with tr_nomination.ato_status_cd = 4. Query the tr_id table for corresponding target data. Store this data in memory.
  - Update the database and the data store in memory; assign a unique Army Request Number (ARN) for each new or update nomination (tr_nomination.user_id is not “gccsaetm”).
  - If you’re sending a CTL:
    - Write the nominations to a CTL file, as defined in the CTAPS SIA.
  - If you’re sending a C112:
    - Write the nominations to a data file.
    - Run the CMP MDLMAP utility, with the data file as input. MDLMAP produces the C112, as defined in MIL-STD-6040.

ETM Targeting / User Specified List - C112

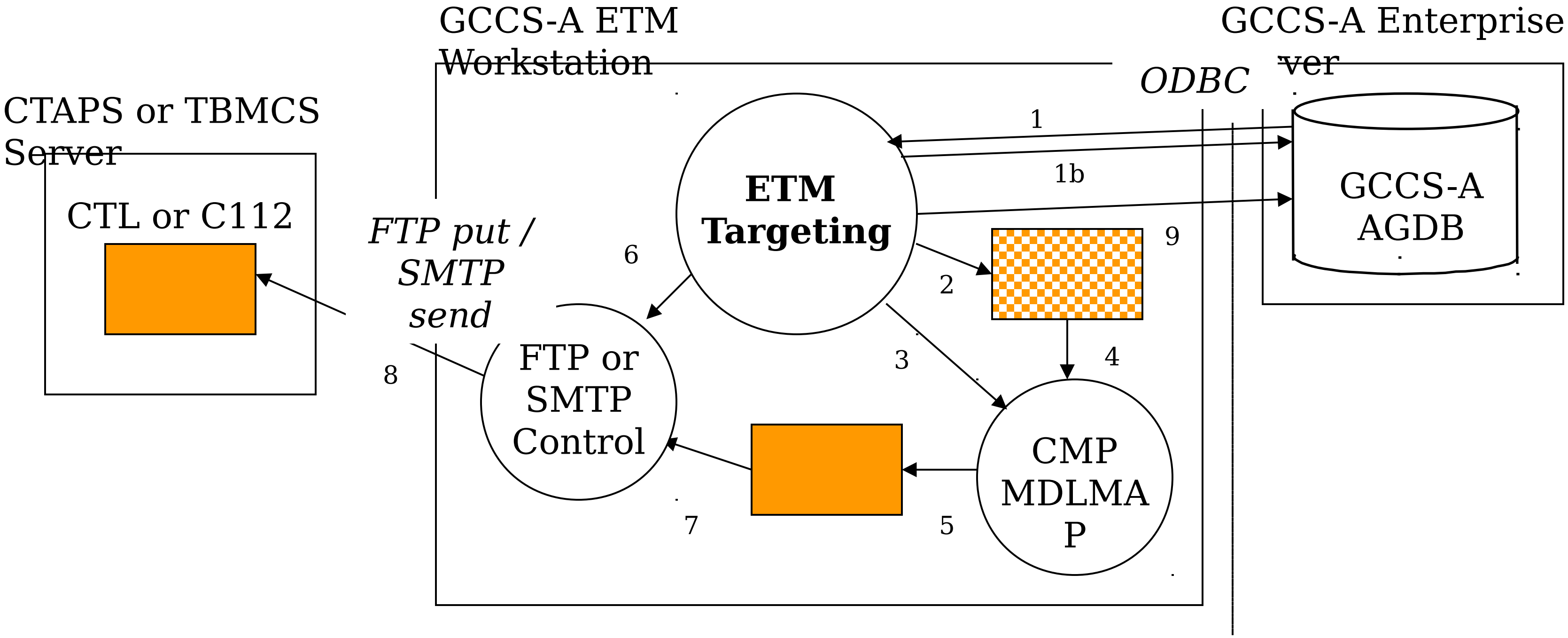
- Processing (continued):
  - FTP put or SMTP send the CTL or C112 to CTAPS or TBMCS.
  - Update the database; set the tr_nomination.ato_status_cd = 1 (sent) for the nomination data which was sent.

ETM Targeting

- The tr_nomination.ato_status_cd is used to track the status of the nomination data. This value is critical to both ETM Targeting and Targeting processing. The values and meanings are listed below.
  - 0: Not Sent
  - 1: Sent
  - 2: Matched
  - 3: Not Matched
  - 4: Send Now

ETM Targeting / Full - C112

- Purpose:
  - Send nominations with the specified nomination day, which have been entered but not yet sent.


GCCS-A ETM Workstation
GCCS-A Enterprise ver
ODBC
CTAPS or TBMCS Server
CTL or C112
FTP put / SMTP send
ETM Targeting
GCCS-A AGDB
FTP or SMTP Control
CMP MDLMAP
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```
SELECT * FROM tr_nomination WHERE
( tr_nomination.nom_army_reqno[3, 4] LIKE <nomination_day> ) AND
( ato_status_cd = 0 )
```

ETM Targeting / Full - C112

- The data transfer is defined as follows:
    - The user selects the method of transmission - FTP, Email, or Disk.
    - The user selects the nomination day as either a day of the month or an offset from the current day.
    - The user selects the operational or exercise database to query for nomination data.
    - The user saves the data transfer.
- The data transfer may be initiated as follows:
    - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
    - The user may launch the data transfer at any time.

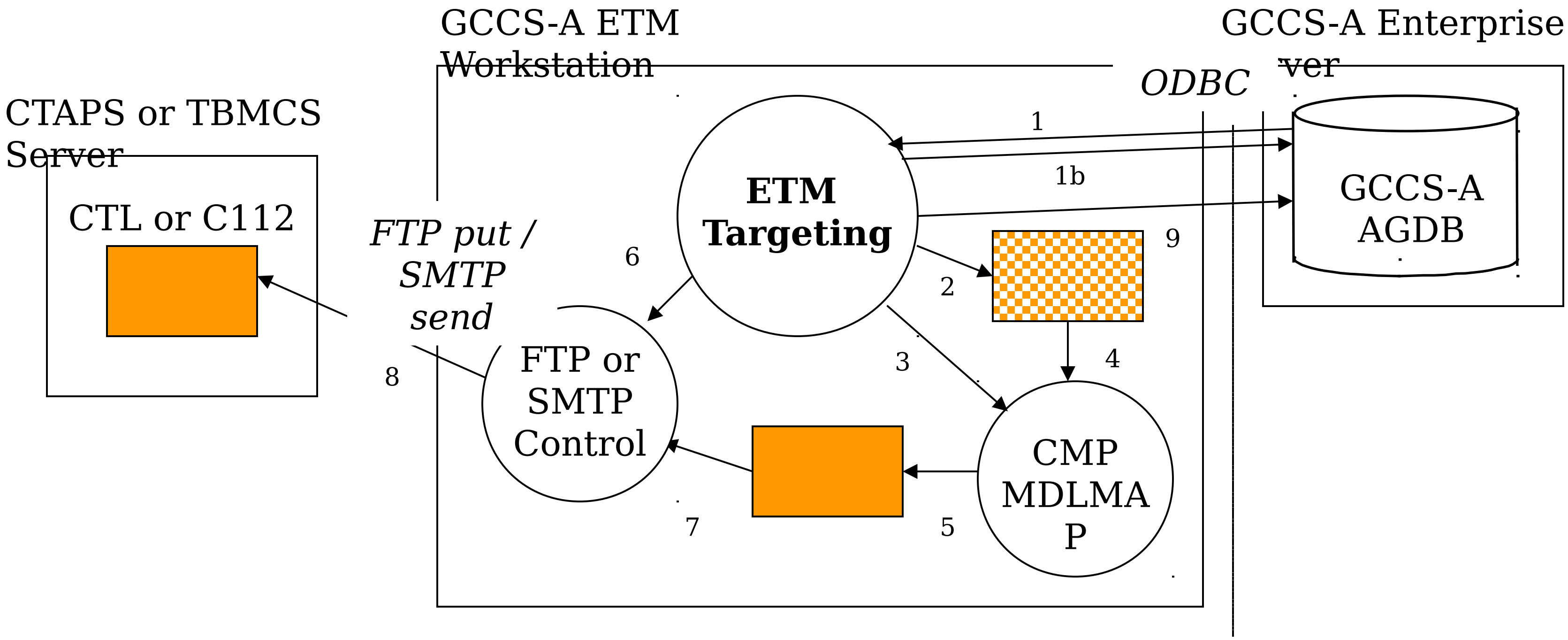
ETM Targeting / Full - C112

- Processing:
  - Query the database for nomination data with the specified nomination day and tr_nomination.ato_status_cd = 0. Query the tr_id table for corresponding target data. Store this data in memory.

  [All the rest is the same as the User Specified List - C112 processing]

ETM Targeting / Organization Specific - C112

- Purpose:
  - Send nominations with the specified nomination day and organization code, which have been entered but not yet sent.



GCCS-A ETM Workstation

GCCS-A Enterprise ver

CTAPS or TBMCS Server

CTL or C112

FTP put / SMTP send

ETM Targeting

FTP or SMTP Control

CMP MDLMAP

ODBC

GCCS-A AGDB

```
SELECT * FROM tr_nomination WHERE
( tr_nomination.nom_army_reqno[3, 4] LIKE <nomination_day> ) AND
( tr_nomination.nom_army_reqno[2, 2] LIKE <organization_code> ) AND
( ato_status_cd = 0 )
```

ETM Targeting / Organization Specific - C112

- The data transfer is defined as follows:
  - The user selects the method of transmission - FTP, Email, or Disk.
  - The user selects the nomination day as either a day of the month or an offset from the current day.
  - The user selects the organization code (A-Z).
  - The user selects the operational or exercise database to query for nomination data.
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

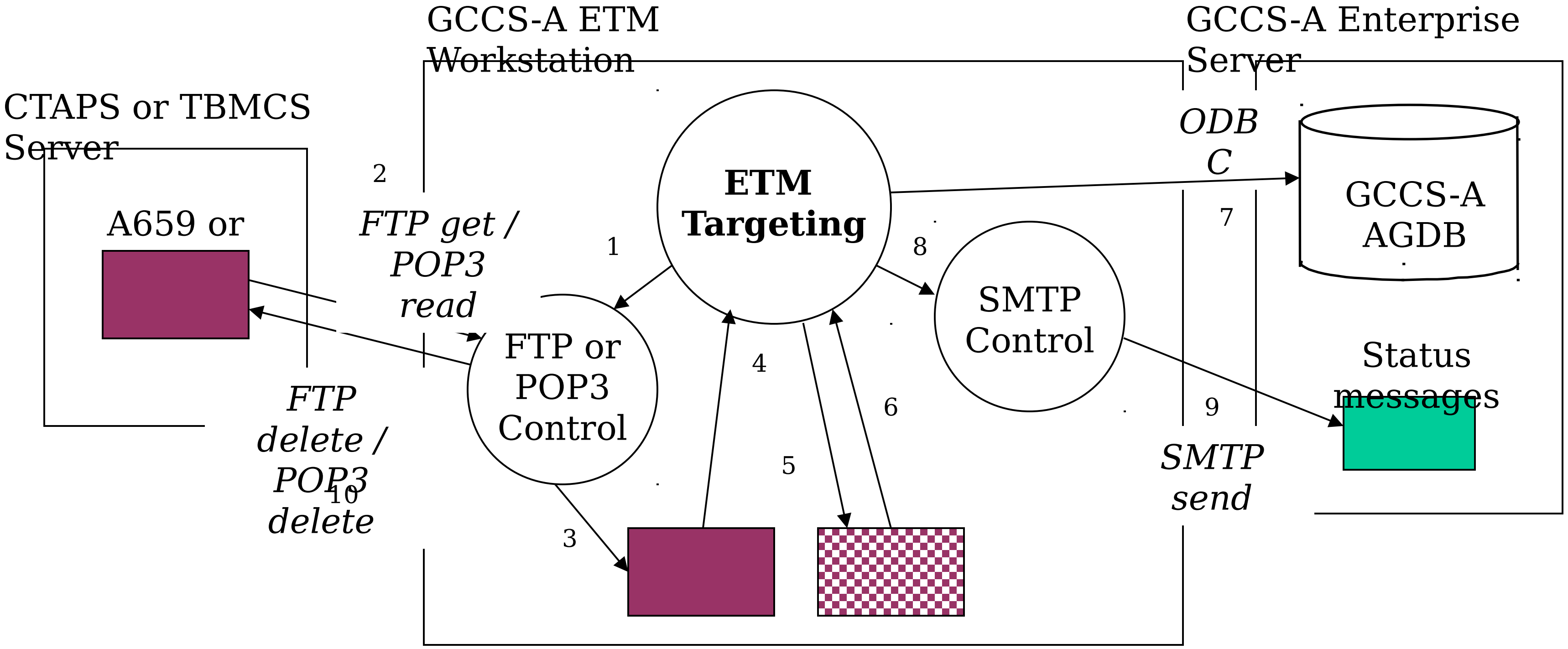
ETM Targeting / Organization Specific - C112

- Processing:
  - Query the database for nomination data with the specified nomination day, organization code and tr_nomination.ato_status_cd = 0. Query the tr_id table for corresponding target data. Store this data in memory.

  [All the rest is the same as the User Specified List - C112 processing]

ETM Targeting / ATO (A659) or ATOCONF (A658)

- Purpose:
  - Receive and process air tasking order.


GCCS-A ETM Workstation
GCCS-A Enterprise Server
CTAPS or TBMCS Server
A659 or
2
FTP get / POP3 read
1
ETM Targeting
8
SMTP Control
ODB C
7
GCCS-A AGDB
FTP or POP3 Control
4
6
5
3
9
Status messages
SMTP send
FTP delete / POP3 delete
10

ETM Targeting / ATO (A659) or ATOCONF (A658)

- The data transfer is defined as follows:
    - The user selects the method of receiving - FTP, Email, or Disk.
    - The user saves the data transfer.
- The data transfer may be initiated as follows:
    - The user may configure the data transfer to automatically initiate session processing when one or more data files are available for retrieval and processing (On Demand, Triggering Enabled).
    - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
    - The user may launch the data transfer at any time.

ETM Targeting / ATO (A659) or ATOCONF (A658)

- Processing:
  - FTP get or POP3 read the A658 or A659.
  - Read the MSGID set to determine the message type.
  - Determine which database to process the air tasking order into:
    - If there is an OPER set, we'll process into the operational database.
    - If there is an EXER set, lookup on the exercise nickname in the agdb_admin_v1 database's oplan_to_database table.
  - Extract the mission data from the A658 or A659. Write the extracted mission data to a local file.
    - If this is an A658 message, extract the MSNDAT records for all MSNDAT sets with a corresponding TGTLOC set.
    - If this is an A659 message, extract the AMSNDAT and REQNO records for all AMSNDAT sets with a corresponding GTGTLOC or MTGTLOC set.

ETM Targeting / ATO (A659) or ATOCONF (A658)

- Processing (continued):
  - Read and process each extracted mission data record, as follows:
    - Check for the record’s ARN in the tr_nomination table.
    - If there’s a match, this is an Army nomination.
      - Add this mission data to the tr_mission table, set non_gccsa_cd = 0.
      - If processing an A659 message and the A659 message had a new BE number, rename all target data keyed on the old BE number (tr_id, tr_mission, tr_nomination, tr_intel, tr_imagery, tr_bda, tr_log, tr_equipment) to key on the new BE number.
      - Update the nomination in the tr_nomination table to indicate that an ATO has been received and there is a match; set ato_status_cd = 2.
    - If there is no match, then this is a non-Army mission.
      - Check for the target in the tr_id table. If it’s not there, add it.
      - Add this mission data to the tr_mission table, set non_gccsa_cd = 1.

ETM Targeting / ATO (A659) or ATOCONF (A658)

- Processing (continued):
  - Once all extracted mission data is processed, update all nominations in the tr_nomination table which are marked as sent (ato_status_cd = 1) to indicate that an ATO has been received and there is no match; set ato_status_cd = 3.
  - Email send status messages, if configured to do so.
  - FTP delete or POP3 delete the A658 or A659.

ETM ROKUS/US-Only Sync

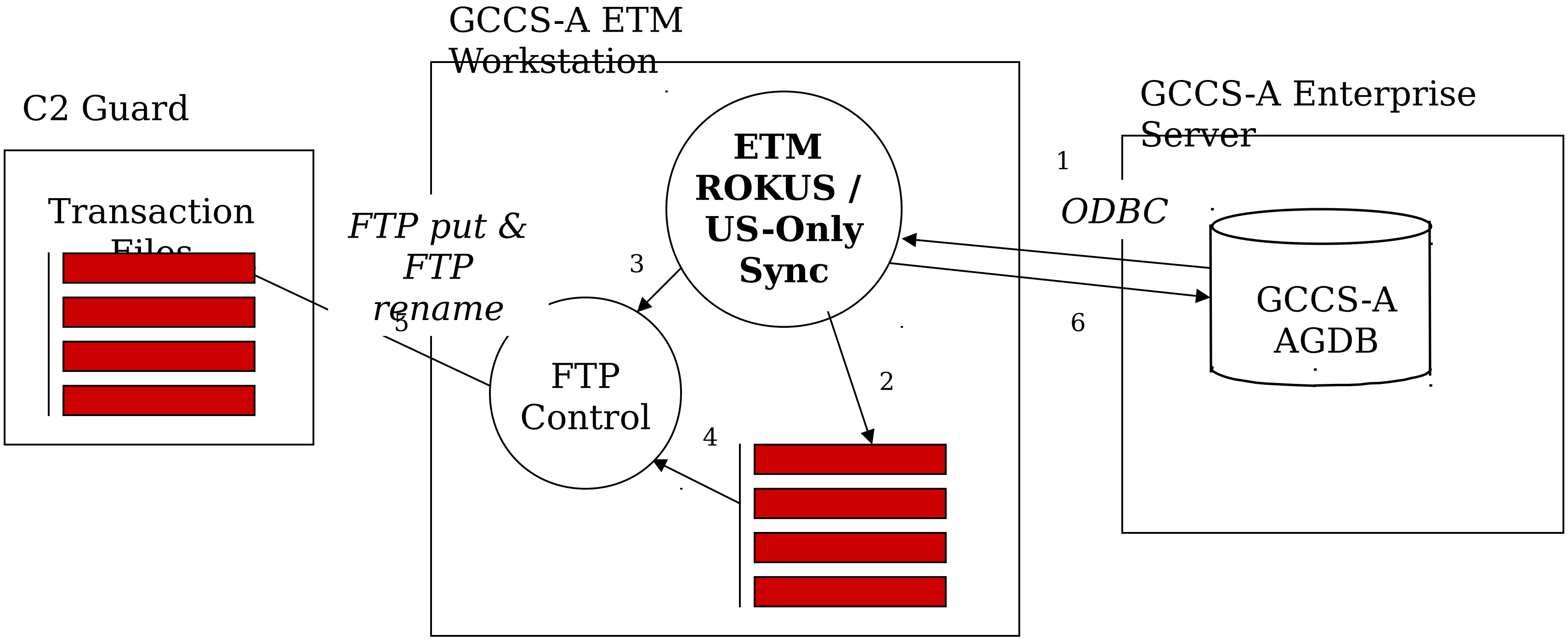
- Purpose:
  - Synchronize GCCS-A database across the C2 Guard in Korea.
    - Send database inserts, updates and deletes to the inbound queue of the C2 Guard.
    - Retrieve and process database inserts, updates and deletes from the outbound queue of the C2 Guard.
- Settings:
  - C2 Guard host.
  - To C2 Guard settings:
    - C2 Guard inbound queue FTP (put) user id, password, directory.
    - Outbound session limits
      - Maximum rows per session
      - Maximum rows per file

ETM ROKUS/US-Only Sync

- Settings (continued):
  - From C2 Guard settings:
    - C2 Guard outbound queue FTP (get) user id, password, directory.
    - Inbound session limits
      - Maximum files per session
- Data transfer types:
  - Send Data To C2 Guard
  - Retrieve Data From C2 Guard

ETM ROKUS/US-Only Sync / Send Data To C2 Guard

- Purpose:
  - Send database inserts, updates and deletes to the inbound queue of the C2 Guard.


GCCS-A ETM Workstation
C2 Guard
Transaction Files
FTP put & FTP rename
ETM ROKUS / US-Only Sync
FTP Control
GCCS-A Enterprise Server
ODBC
GCCS-A AGDB
1
2
3
4
5
6

ETM ROKUS/US-Only Sync / Send Data To C2 Guard

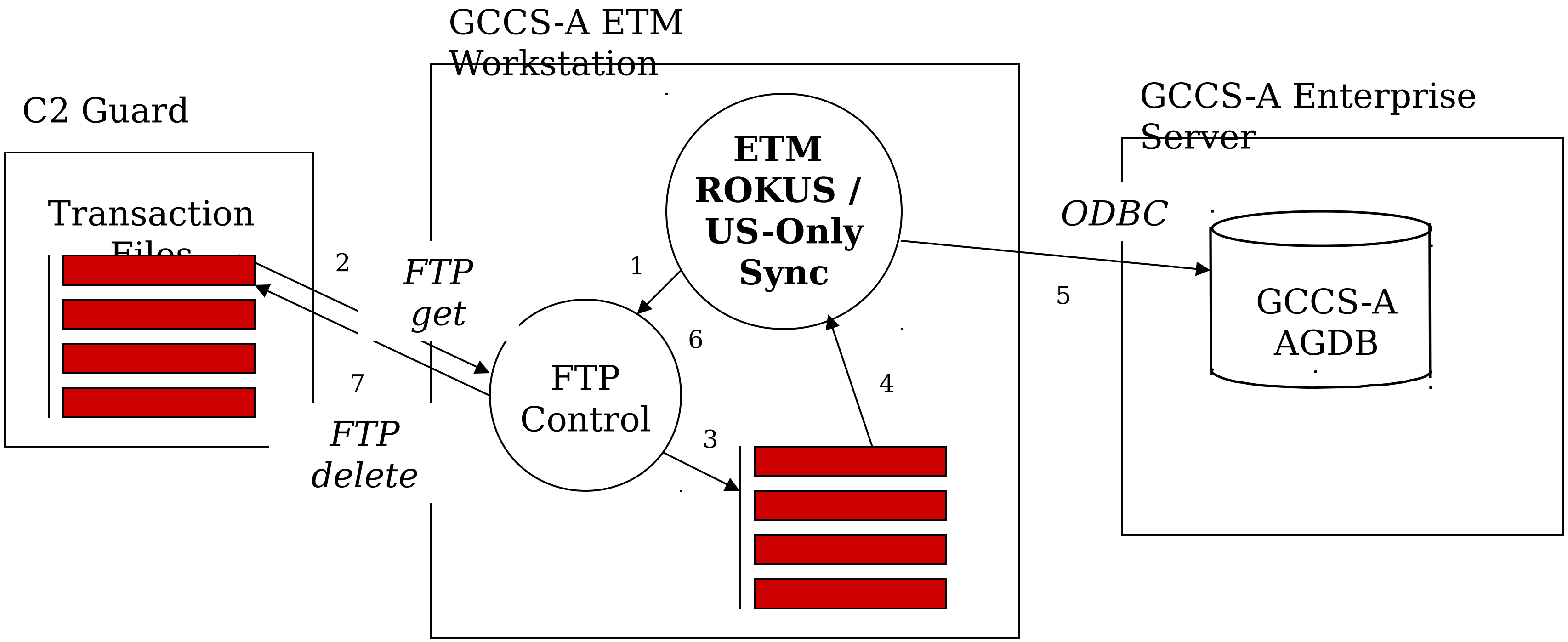
- The data transfer is defined as follows:
    - The user selects the operational or exercise database to query for inserts, updates and deletes (records in the notif_queue).
    - The user saves the data transfer.
- The data transfer may be initiated as follows:
    - The user may configure the data transfer to automatically initiate session processing when there are one or more records in the notif_queue for processing (On Demand, Triggering Enabled).
    - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
    - The user may launch the data transfer at any time.

ETM ROKUS/US-Only Sync / Send Data To C2 Guard

- Processing:
  - Retrieve the notif_queue last record processed, from notif_last_proc.last_proc_q_rec_id.
  - Query the notif_queue for the new records since the last record processed, up to the outbound session max rows per session setting.
  - Write each record to transaction files, in sequence.
    - The file name and transactions are formatted as negotiated with DISA.
    - The number of transactions per file will not to exceed the outbound session maximum rows per file setting.
  - As you finish writing each transaction file, send the file, as follows:
    1. FTP put the file to the C2 Guard inbound queue as a dot file.
    2. FTP rename the dot file to the actual file name (without the dot).
  - Update the notif_queue last record processed marker, in the database.

ETM ROKUS/US-Only Sync / Retrieve Data From C2 Guard

- Purpose:
  - Retrieve and process database inserts, updates and deletes from the outbound queue of the C2 Guard.



GCCS-A ETM Workstation
C2 Guard
Transaction Files
GCCS-A Enterprise Server
ETM ROKUS / US-Only Sync
ODBC
GCCS-A AGDB
FTP get
FTP delete
FTP Control
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ETM ROKUS/US-Only Sync / Retrieve Data From C2 Guard

- The data transfer is defined as follows:
  - The user saves the data transfer.
- The data transfer may be initiated as follows:
  - The user may configure the data transfer to automatically initiate session processing when there are one or more transaction files on the C2 Guard outbound queue for processing (On Demand, Triggering Enabled).
  - The user may configure the data transfer to automatically initiate session processing on a scheduled basis, given specified beginning DTG and frequency (Continuous, Continuous Processing Enabled).
  - The user may launch the data transfer at any time.

ETM ROKUS/US-Only Sync / Retrieve Data From C2 Guard

- Processing:
  - Retrieve the GCCS-A database schema information.
  - FTP list the transaction files from the C2 Guard outbound queue, up to the inbound session max files per session setting.
  - Retrieve and process each transaction file, as follows:
    - FTP get the transaction file from the C2 Guard outbound queue.
    - Process each transaction in the transaction file, as follows:
      - Using the GCCS-A database schema information, build and apply the appropriate SQL insert, update or delete against the GCCS-A database specified in the transaction.
    - FTP delete the transaction file from the C2 Guard outbound queue.

Tips on Troubleshooting

- To troubleshoot problems with application processing, try the following:
  - Leave the Message Monitor open.
    - All FTP, POP3 and SMTP status and error messages are displayed.
  - Leave the Session Monitor window open.
  - Select the greatest logging level - down to GCCS-A SQL Applied.
  - Check your connection with the external system.
    - Ping the external system’s server.
    - Run the FTP, SMTP or POP3 operations through some other FTP, SMTP or POP3 client software.
    - Login to external database server, through the MS-DOS command line Sybase isql and Oracle sqlplus utilities..

References

- D3.2 ETM Admin Guide
- SIAs
  - GSORTS SIA contains SQL to create views.
- MIL-STD-6040 (USMTF) 1998/1999+